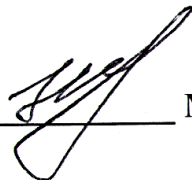


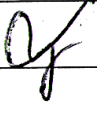
Ministry of Education and Science of Ukraine  
Sumy National Agrarian University  
Faculty of Veterinary Medicine  
Department of Obstetrics and Surgery

## **Work program ( syllabus ) of the training component**


### **Obstetric preventive technologies animal health**

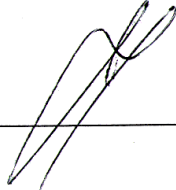
<b>Specialty</b>	<b>211 Veterinary Medicine</b>
<b>Educational program</b>	<b>211 «Veterinary medicine»</b>
<b>Level of higher education</b>	<b>Second (master's )</b>



Developer:  Musiienko Yurii, PhD, Associate Professor

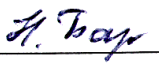
Considered, approved and approved at the meeting of the Department of Obstetrics and Surgery	Protocol dated 04.05.2024, №11
	Head of Department <u></u> Oksana Shkromada

Agreed:

Guarantor of the educational program  Roman Petrov

Dean of the Faculty,  
where the educational program is implemented  Oleksandr Nechyporenko

Review of the work program (attached) provided by:  Anatolii Fotin  
 Oleksandr Stokliiy

Methodist of the Department of Education Quality,  
licensing and accreditation  (signature) Hajis Hapanis (full name)

Registered in the electronic database: date: 11.07 2024

## 1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Title	<b>Obstetric preventive technologies animal health</b>			
2.	Faculty/Department	Faculty of Veterinary Medicine, Department of Obstetrics and Surgery			
3.	Type (compulsory or optional)	Obligatory			
4.	Program(s) to which module is attached (to be filled in for compulsory types)	211- Veterinary medicine			
5.	Module can be suggested for (to be filled in for optional types)	Obstetrics and gynecology			
6.	Level of the National Qualifications Framework	(2 master's degrees) 7			
7.	Semester and duration of module	6th year, 11th semester 1-15			
8.	ECTS credits number	3			
9.	Total workload and time allotment	Directing research			Independent learning
		Lectures	Practical training	Laboratories	
	XI semester	<b>4</b>		<b>8</b>	<b>78</b>
10.	Language of instruction	English			
11.	Module leader	Musiienko Yuriy Volodymyrovych			
12.	Module leader contact information	<a href="mailto:yurii.musiienko@snaeu.edu.ua">yurii.musiienko@snaeu.edu.ua</a>			
thirteen.	Module description	OP is part of the educational process related to the general objectives for the training of highly qualified veterinarians. Provides mastering the ability to apply knowledge in practical situations; adhere to the rules of labor protection, asepsis and antiseptics during professional activities; have knowledge of animal fixation techniques, training of midwives' hands, instruments and operating field, as well as knowledge of the effects of analgesics, antimicrobials and other drugs they have used in their professional activities; plan, organize and implement measures for the treatment of animals, obstetric and gynecological manipulations and operations.			
14.	Module aim	The purpose of the educational component "OK" in obstetrics and gynecology is to assign special competencies of students on the theoretical foundations, rules, methods and techniques of cryopreservation of sperm. Influence of cryopreservation on sperm, semen			

		quality and fertility of animals. This is a component of the learning process that ensures the achievement of goals, competencies and significant results in the learning process.
15.	Module Dependencies (prerequisites, co-requisites, incompatible modules)	1. The normative discipline "Veterinary Andrology" is based on knowledge of such disciplines as "Animal Anatomy", "Cytology, Histology, Embryology", "Chemistry", "Animal Physiology", "Pathological Physiology", "Veterinary Microbiology", "Clinical Diagnosis and Diagnostics". visualization ", " Pharmacology and pharmacotherapy ", studied in previous semesters. 2. writing a master's thesis
16.	The policy of academic integrity	Assimilation of OK with observance of academic integrity, plagiarism is prohibited. In case of systematic violation of these requirements, it is recommended to re-study the OK. In case of plagiarism in the performance of tasks - they are repeated In case of plagiarism during the test - the test is repeated at an additional session
17	Link in Moodle	<a href="https://cdn.snau.edu.ua/moodle/course/view.php?id=1997">https://cdn.snau.edu.ua/moodle/course/view.php?id=1997</a>

## 1.2 INFORMATION ABOUT THE TEACHER / TEACHERS .

1. Musienko Yuriy Volodymyrovych - Candidate of Veterinary Sciences, Associate Professor of Obstetrics and Surgery, Sumy NAU

## 2. LEARNING RESULTS FOR THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH THE SOFTWARE LEARNING RESULTS

	Program learning outcomes, the achievement of which is aimed at OK								As estimated
	PLO 1. Know and use the terminology of veterinary medicine.	PLO 2. Use information from domestic and foreign sources to develop diagnostic, treatment and business strategies	PLO 4. Collect anamnesic data during the registration and examination of animals, decide on the choice of effective methods of diagnosis, treatment and prevention of animal diseases .	PLO 7. Formulate conclusions on 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 in enterprises for keeping, breeding or exploitation of animals of different classes and species.	PLO 8. Monitoring of the causes of the spread of diseases of various etiologies and biological contamination of livestock waste, as well as materials and veterinary products.	PLO 15. Know the rules of storage of various pharmaceuticals and biologicals, methods of their enteral or parenteral use, understand the mechanism of their action, interaction and complex action on animals.	PLO 17. Know the requirements of biosafety , bioethics and animal welfare.	PLO 18. Carry out accounting during professional activities.	
Learning outcomes for OK: After studying the educational component, the student is expected to be able to... »									
MLO 1. Know and use the terminology of obstetrics and gynecology. Use information from domestic	X	X							1. Analysis of students' knowledge in the kahoot program

and foreign sources to develop diagnostic, treatment strategies for obstetrics and gynecology									
MLO 2. Collection of anamnestic data at registration and inspection of animals, to make the decision on a choice of effective methods in the help	X	X	X						1. Analysis of students' knowledge in the kahoot program
MLO 3. Draw conclusions about the effectiveness of selected methods of obstetrics and gynecology and non-communicable diseases.			X	X					1. Written survey
MLO 4. Monitor the spread of diseases of obstetrics and gynecology pathology, environmental pollution with waste care, as well as materials and veterinary drugs.				X					1. Abstract
MLO 5. Know the rules of storage various pharmaceuticals and biological products, drugs and ways of their enteral or parenteral use, to understand the mechanism of their action, interaction and complex action on the body of animals.					X				1. Notebook design
MLO 6 Know the rules and requirements of biosafety, bioethics and animal welfare.						X			2. Computer survey and analysis of students' knowledge (certification)
MLO 7 Maintain accounting reports of sick animals, use of drugs and potent drugs.							X	X	3. Multiple choice test (exam)

### 3. CONTENT OF THE EDUCATIONAL COMPONENT (PROGRAM OF THE COURSE)

Topic.	Distribution of hours				Training resources
	Classroom work			Independent learning	
	Lectures	Practice	Laboratory		
<p><b>Topic 1: Pathology of pregnancy.</b> The importance of external and internal factors in the occurrence of pathology of pregnant females. The main diseases of pregnant females. Abortions, their causes, prevalence, clinic, classification, losses and prevention. Care of animals in the period after abortion. Restoration of reproductive function of females after abortion.</p>			2	10	1, 2
<p><b>Topic 2: Pathology of childbirth.</b> Causes of pathological childbirth. Obstetric examination plan and diagnosis. Obstetric instruments and its application. Basic principles of obstetric care in pathological childbirth. Weak contractions and attempts. Strong contractions and attempts. Uterine torsion. Narrowness of the pelvis. Narrowness of the vulva and vagina. Narrowing of the cervical canal. Cervical spasm. Dry childbirth. Incorrect fetal relationships and patrimonial ways. Wrong positions and submissions. Wrong positions and placement .</p>			2	10	1, 3-7
<p><b>Topic 3: Pathology of the postpartum period .</b> Causes of postpartum diseases . Injuries to the birth canal. Local inflammatory processes. General postpartum infection. Postpartum pathology of non-inflammatory nature.</p>	2			10	8-9
<p><b>Topic 4: Pathology of newborn animals.</b> Physiological parameters of the newborn. Care for newborns and parturients. Major diseases of newborns.</p>				10	1-5
<p><b>Topic 5: Pathology of the breast.</b> Influence of external and internal factors on the development and function of the breast. Hypo - and agalactia - types, causes, prevention. Mastitis - causes, spread, economic losses. Classification of mastitis . Forms of mastitis in females - causes, clinic, diagnosis, prognosis, treatment and prevention</p>			2	8	1-8
<p><b>Topic 6: Veterinary gynecology.</b> Definition of discipline. The essence of infertility and infertility, losses, consequences. Classification of forms of infertility, prevention measures. Causes of infertility. Gynecological pathology.</p>	2			12	1-5
<p><b>Topic 7: Intensification of reproductive function of females.</b> Definition of terms: recovery, stimulation, synchronization, suppression and intensification. Purpose, methods and ways of intensification and suppression of reproductive function in females of different species.</p>				10	1, 3-7
<p><b>Topic 8: Obstetrics and gynecology.</b> Definition and significance of medical examination. Components of medical examination and their role in improving the reproduction of livestock. Stages and frequency of obstetric and gynecological medical examinations.</p>			2	8	8-9
Total	4		8	78	

#### 4. METHODS OF TEACHING AND TEACHING

MLO	Teaching methods (work to be done by the teacher <u>during</u> <u>classes</u> , consultations)	Number of hours	Teaching methods (what types of educational activities the student must perform <u>independently</u> )	Number of hours
<p><b>MLO 1.</b> Know and use the terminology of veterinary medicine. Using information from local and foreign sources to develop diagnostic, therapeutic and pan -Entrepreneurial strategies</p>	<ul style="list-style-type: none"> <li>- presentation of lecture material according to the plan;</li> <li>- proposals for literature on each topic of lectures;</li> <li>- use Moodle , Zoom</li> </ul>	2 years	<ul style="list-style-type: none"> <li>- mastering research methods;</li> <li>- independent work during the research</li> <li>- recording the results of the study;</li> <li>- analysis of research results;</li> </ul>	8 hours
<p><b>MLO 2.</b> Collect anamnestic data during the registration and examination of animals, decide on the choice of effective methods of diagnosis, treatment and prevention of animal diseases</p>	<ul style="list-style-type: none"> <li>- consultations of students in the process of mastering OK - methodical registration of all types of student work;</li> <li>- control of the educational process</li> </ul>	2 years	<ul style="list-style-type: none"> <li>- registration of the journal of sick animals;</li> <li>- fixation of lecture material</li> <li>- obligatory preparation for hospital, mastering of lecture material for hospital.</li> </ul>	8 hours
<p><b>MLO 3.</b> Draw conclusions about the effectiveness of selected methods and means of treatment of animals, prevention of infectious and non-infectious diseases, as well as production and technological processes in enterprises for keeping, breeding or operation of animals of different classes and species.</p>	<ul style="list-style-type: none"> <li>presentation of lecture material according to the plan;</li> <li>- proposals for literature on each topic of lectures;</li> <li>- use Moodle , Zoom</li> </ul>	4 years	<ul style="list-style-type: none"> <li>registration of the journal of sick animals, medical history;</li> <li>- fixation of lecture material</li> <li>- obligatory preparation for hospital, mastering of lecture material for hospital.</li> </ul>	8 hours
<p><b>MLO 4.</b> Monitor the causes of the spread of diseases of various etiologies and biological contamination of livestock waste, as well as materials and veterinary products.</p>	<ul style="list-style-type: none"> <li>presentation of lecture material according to the plan;</li> <li>- proposals for literature on each topic of lectures;</li> <li>- use Moodle , Zoom</li> </ul>	4 years	<ul style="list-style-type: none"> <li>draw conclusions from the data obtained;</li> <li>- fixation of lecture material</li> <li>- obligatory preparation for hospital, mastering of lecture material for hospital.</li> </ul>	8 hours
<p><b>MLO 5.</b> Know the rules of storage of various drugs and biological products, methods of their enteral or parenteral use, understand the mechanism of their action, interaction and complex action on animals.</p>	<ul style="list-style-type: none"> <li>consultations of students in the process of mastering OK - methodical registration of all types of student work;</li> <li>- control of the educational process</li> </ul>	4 years	<ul style="list-style-type: none"> <li>compiling a journal of class A and B drugs;</li> <li>- fixation of lecture material</li> <li>- obligatory preparation for the hospital, mastering the lecture</li> </ul>	10 hours

<b>MLO 6</b> Know the rules and requirements of biosafety , bioethics and animal welfare.	presentation of lecture material according to the plan; - proposals for literature on each topic of lectures; - use Moodle , Zoom	4 years	draw conclusions from the data obtained; - fixation of lecture material - mandatory preparation for hospital,	12 hours
<b>MLO 7</b> Carry out accounting in the course of professional activities.	consultations of students in the process of mastering OK - methodical registration of all types of student work; - control of the educational process	4 years	compiling logs of the enterprise or clinic - fixation of lecture material - obligatory preparation for hospital, mastering of lecture material for hospital.	12 hours

## 5. EVALUATION BY EDUCATIONAL COMPONENT

### 5.1.Diagnostic evaluation (indicated if necessary)

### 5.2. Summative assessment

5.2.1. To assess the expected learning outcomes provided

№	Methods of summative evaluation	Points / Weight in the overall score	Date of compilation
<b>Autumn semester</b>			
1.	Survey in laboratory-practical classes, notebook design	55/55%	3, 8, 12,14 weeks
2.	Design Abstract	15/15%	14 weeks
3.	Computer survey and analysis of students' knowledge (testing, current control)	15/15%	14 weeks
4.	Multiple selection text (credit )	15/15%	Week 15

### 5.3. Evaluation criteria

#### Autumn semester

Final evaluation method	Unsatisfactorily	Satisfactorily	Fine	Perfectly
Survey in laboratory-practical classes	<6 points	6 - 8 points	9 - 12 points	13 - 15 points
	The student has only a few concepts, can not draw conclusions	Has a general idea of the topic, makes a significant number of mistakes	Has all the questions, makes a small number of unprincipled mistakes	Completely masters all questions, is not mistaken
Abstract design	<8 points	9-11 points	12-14 points	15 points
	Task not executed	The abstract is developed without understanding the relationship between the tasks to be solved, is not able to critically evaluate	Abstract at a good level of analysis, synthesis, generalization and critical evaluation of data from literature sources cited in Abstract , able to critically evaluate	The abstract is a flawlessly, logically arranged material with an understanding of the interrelationships of the processes revealed on this topic, demonstrates a highly developed ability to critical academic



		information from the literature	information from literature sources	literature and other sources of information
Computer survey and analysis of students' knowledge (certification)	<20 points	20 - 34 points	35 - 44 points	4 5 points
	Task not executed	The computer survey was conducted without understanding the relationship between the tasks to be solved, unable to critically evaluate information from the literature	Computer survey conducted at a good level, analysis, synthesis, generalization and critical evaluation of data from literature sources, able to critically evaluate information from literature sources	The computer survey is performed flawlessly, logically organized material with an understanding of the interrelationships of the processes revealed on this topic, demonstrates a highly developed ability to critical academic literature and other sources of information
text (test)	<10 points	10-14 points	15-24 points	2 5 points
	Task not executed	Task done by 50%	Task 75% completed	Task 100% done

#### 5.4. Formative assessment:

To assess the current progress in learning and understanding areas for further improvement is provided

№	Elements of formative assessment	Date
1	Survey in laboratory-practical classes, design of a notebook with comments	According to the schedule
2	Registration of abstracts and comments	Within a week until the end of the educational process

## **6. LEARNING RESOURCES**

### **6.1. Key resources**

1. Veterinary obstetrics, gynecology and biotechnology of animal reproduction with the basics of andrology / [ Yablonsky VA , Хомин С.П. , Kalinovsky GM etc.]. - Vinnytsia: Nova knyha , 2011. - 608 p.
2. Cap. VV, Valchuk OA, Derkach SS, Zhuk Yu.V., Masalovich Yu.S. Biotechnological methods in veterinary reproductive medicine : a textbook. - Kyiv, NULES of Ukraine, 2020. - 102 p.
3. Lyubetsky VY, Zhuk YV, Valchuk OA, Derkach SS, Kovpak. V.V. Laboratory and functional diagnostics in veterinary obstetrics, gynecology and andrology: a textbook. - Kyiv, NULES of Ukraine, 2020. - 258 p.
4. Valchuk OA, Mazur VM, Kovpak VV, Derkach SS, Zhuk Yu.V. Methods of research in veterinary medicine: Textbook. - Kyiv: NULES of Ukraine, 2020. - 146 p.
5. Lakatosh VM Obstetrics, gynecology and biotechnology of reproduction of dogs and cats. Textbook . К.: ФОП " ЯМЧИНСЬКИЙ О.В"., 2020. - 301 с.
6. Berezovsky AV, Kharenko MI, Lyubetsky VY, Koshevoy VP, Fotina TI, Zhelavsky MM, Sklyarov PM, Stravsky JS, Chekan O .M., Baidevlyatova Yu.V., Saletska OV, Zhuk Yu.V., Valchuk OA, Derkach SS, Fedorenko S.Ya., Luzan MP, Musienko Yu.V. ., Dmitriev O.Ya., Kostyshyn E.Ye., Khomutov SL Physiology and pathology of the mammary gland in animals: Textbook / for general . ed .. A.V. Berezovsky and MI Kharenka - К .: DIA, 2018. - 476 p.

### **6.2. Instructions**

7. Methodical recommendations for laboratory-practical classes on "Obstetrics, gynecology and biotechnology of animal reproduction" for full-time students majoring in 6.11010101 "Veterinary Medicine" shortened period. - Sumy: Sumy National Agrarian University, 2016. - 114 p.

### **6.3 Electronic resources**

8. <http://library.sau.sumy.ua>
9. <http://veterinary.net.ua/books/veterinarne-akusherstvo-ginekologiya-ta-biotehnologiya-vidtvorennya-tvarin-z-osnovami>
10. [http://www.studmed.ru/yablonskiy-va-praktichne-akusherstvo-gnekologiya-ta-botehnologiya-vdtvorennya-tvarin-z-osnovami-andrologyi\\_ace66ddb090.html](http://www.studmed.ru/yablonskiy-va-praktichne-akusherstvo-gnekologiya-ta-botehnologiya-vdtvorennya-tvarin-z-osnovami-andrologyi_ace66ddb090.html)