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 educational component

(required)

Specialty	211 " Veterinary Medicine
Educational program програма	**Operative surgery with topographic anatomy**
Level of education	second (master's) level of higher education

Sumy - 2023

Author: _____ **Chekan O.N., Associate Professor**

Module syllabus agreed at the Obstetrics and Surgery Department meeting	Minutes No _14___ dated June_30__ 2023
	Head of Obstetrics and Surgery Department _____ **(Shkromada O.I.)**

Approved by:

Guarantor of the educational program _____ Ulko L.G.
(signature) (full name)

Dean of the faculty _____ Nechiporenko O.L.

Syllabus review (attached) is provided by : _____ (Sklyar O.I.)
_____ (Pluta L.V.)

Representative of the Department of Education Quality assurance,
licensing and accreditation _____ (_____)

Registered in electronic data base 19.07. 2023

Syllabus review data:

The academic year in which changes are made	The Academic program attachment number with changes description	Changes revised and approved		
		Minutes No and date of the department meeting	Head of Department	Guarantor of the Academic program

1. MODULE OVERVIEW

1.	Title	Operative surgery with topographic anatomy			
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)				
6.	Level of the National Qualifications Framework	(2 master's) 7			
7.	Semester and duration of module	V semester 1-18			
8. ECTS credits number V semester: 2 credits total: 60 hours, aud. 44, incl. 14 hours lectures, 30 hours labs, Self-directed: 46 hours , exam					
9.	Total workload and time allotment	Directed study			Self-directed study
		Lectures	Practicals	Labs	
		14		**30**	**46**
10.	Language of instruction	English			
11.	Module leader	Chekan Alexander Nikolaevich			
12.	Module leader contact information	oleksandr.chekan@snau.edu.ua			
13.	Module description	OP operative surgeons her with topographic anatomy is part of the educational process related and with common goals to train highly qualified veterinarians . Provides mastery of methods of surgical intervention in various emergencies of the animal , prepares students to master the OP of clinical disciplines by studying the pathological processes of all body systems and the existence of the body as a whole. Assimilation of material from this OP forms the basis of surgical knowledge of the student and the future veterinarian, contributes to the professional development of the student.			
14.	Module aim	The purpose of the educational component OK at operatyve surgeons her with topographic anatomy has the purpose of students' special competences on theoretical foundations, rules, methods and application techniques of anesthesia and perform surgical procedures in animals . It 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. Normative discipline " O perative surgery with topographic anatomy " is based on knowledge of such disciplines as "Animal Anatomy", "Cytology, Histology, Embryology", "Chemistry", "Animal Physiology", "Pathological Physiology", "Veterinary Microbiology", "Clinical diagnosis and diagnostic imaging", "Pharmacology and pharmacotherapy", studied in previous semesters . 2. It is a precursor to "General and special surgery of large animals" and other clinical disciplines.			

16.	The policy of academic integrity	Assimilation of OK in compliance with 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 performed repeatedly In case of plagiarism during the exam - the exam is repeated at the tax session
17	Link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=3978

1.2 INFORMATION ABOUT THE TEACHER / TEACHERS .

1. Chekan Alexander Nikolaevich - Candidate of Veterinary Sciences, Associate Professor of Obstetrics and Surgery, Sumy NAU

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

MLOs: On successful completion of the module the learner will be able to:	Program learning outcomes, the achievement of which is aimed at OK								**How assessed**
	PLOs 1. Know and use the terminology of veterinary medicine.	**PLOs** 2. Use information from domestic and foreign sources to develop diagnostic, treatment and business strategies	**PLOs** 4. Collect anamnestic data during registration and examination of animals, make decisions on the choice of effective methods of diagnosis, treatment and prevention of animal diseases.	**PLOs** 7. To formulate conclusions on the effectiveness of selected methods and means of keeping, feeding and treatment of animals, prevention of infectious and non-communicable diseases, as well as production and technological processes at enterprises for keeping, breeding or operation of animals of different classes and species.	**PLOs** 8. Monitor the causes of the spread of diseases of various etiologies and biological pollution of livestock waste, as well as materials and veterinary products.	**PLOs** 15. Know the rules of storage of various pharmaceuticals and biologicals, ways of their enteral or parenteral use, understand the mechanism of their action, interaction and complex action on the body of animals.	**PLOs** 17. Know the rules and requirements of biosafety , bioethics and animal welfare.	**PLOs** 18. Carry out accounting reporting during professional activities.	
MLO1. Know and use the terminology of operative surgery. Use information from domestic and foreign sources to develop diagnostic, treatment strategies for surgery	**X**								1. Survey in laboratory-practical classes.
MLO2. Collect anamnestic data during registration and examination of animals, make decisions on the choice of effective methods of operations	**X**	**X**							1. Computer survey and analysis of kahoot students' knowledge
MLO3. Formulate conclusions about the effectiveness of selected methods of surgery and prevention of infectious and non-communicable diseases.			**X**						1. Written survey, solving situational problems
MLO4. Monitor causes of the spread of diseases of surgical pathology, pollution of the environment with waste from operations, as well as materials and veterinary products.				**X**					1. Registration of the abstract
MLO5.					**X**				1. Survey in

Know the rules of storage various pharmaceuticals and biologicals, 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.									laboratory-practical classes, notebook design
MLO6 Know the rules and requirements of biosafety , bioethics and animal welfare.						**X**			2. Computer survey and analysis of students' knowledge (certification)
MLO7 Carry out accounting reporting of sick animals, operations, use of drugs and potent drugs.							X	X	3. Multiple choice test (exam)

3. MODULE INDICATIVE CONTENT

Topic.	Distribution of hours				Learning resources
	Directed study			Self-directed study	
	Lectures	Practicals	Labs		
Topic 1 . *General issues of operative surgery and topographic anatomy*	6		20	40	1, 2, 3, 4
1. Subject and methods of operative surgery and topographic anatomy	2		2	10	1,2
2. Rules for working with animals, their fixation and immobilization	2		4		5
3. Surgical instruments and equipment	2			10	6
4. Prevention of surgical infection				10	7-10
5. Technique of basic surgical manipulations (injections of drugs, bloodletting, blood transfusion)			4 4	2	11
6. Stopping bleeding and ways to prevent blood loss during surgery	2		4	4	12
7. Separation and connection of tissues. Minimally invasive surgery				2	10-12
8. Desmurgia				2	14
Topic 2. *Anesthesiology*	8		10	36	15
9. Local anesthesia			2	6	10
10. General anesthesia	2		2	4	15
Topic 3. Topographic anatomy, operations and their anesthesia provision in the head, neck, chest and abdomen			2 2	22	1, 2, 3, 4, 6, 7, 10, 13, 14
11. Operations on the head	2		2	8	15
12. Surgery on the back of the head and neck	2			8	16
13. Operations in the chest				2	10
14. Operations in the area of the abdominal wall and on the organs of the abdominal cavity				2	1, 2, 3, 4, 6, 7, 10, 13, 14
15. Surgical treatment of hernias				2	16
Total	14		30	76	

4. METHODS OF TEACHING AND TEACHING

MLO	Teaching methods (directed study)	hours	Learning methods (self-directed study)	hours
MLO 1. Know and use the terminology of veterinary medicine . Using information from local and f oreign sources for the development of diagnostic , therapeutic and Mr idpr yyemnytskyh strategies	- presentation of lecture material according to the plan; - proposals for literature on each topic of lectures; - use Moodle , Zoom	2 hours	- mastering research methods; - independent work during research - fixation of research results; - analysis of research results ;	2 hours
MLO 2 . Collect anamnestic data during registration and examination of animals, make decisions on the choice of effective methods of diagnosis, treatment and prevention of animal diseases	- consultations of students in the process of mastering OK - methodical registration of all types of students' works; - control of the educational process	2 hours	- registration of the journal of sick animals ; - fixation of lecture material - mandatory preparation for the hospital, mastering the lecture material for the hospital.	2 hours
MLO 3 . Formulate conclusions on the effectiveness of selected methods and means of treatment of animals, prevention of infectious and non-communicable diseases, as well as production and technological processes in enterprises for keeping, breeding or operation of animals of different classes and species.	presentation of lecture material according to the plan; - proposals for literature on each topic of lectures; - use Moodle , Zoom	2 hours	registration of the journal of sick animals, medical history ; - fixation of lecture material - mandatory preparation for the hospital, mastering the lecture material for the hospital.	2 hours
MLO 4 . Monitor the causes of the spread of diseases of various etiologies and biological pollution of livestock waste, as well as materials and veterinary products.	presentation of lecture material according to the plan; - proposals for literature on each topic of lectures; - use Moodle , Zoom	2 hours	drawing conclusions from the received data; - fixation of lecture material - mandatory preparation for the hospital, mastering the lecture material for the hospital.	2 hours
MLO 5. Know the rules of storage of various pharmaceuticals and biological products, ways of their enteral or parenteral use,	consultations of students in the process of mastering OK -	2 hours	drawing up a journal of class A and B medicines ; - fixation of lecture	2 hours

understand the mechanism of their action, interaction and complex action on the body of animals.	methodical registration of all types of students' works; - control of the educational process		material - obligatory preparation for LPZ, mastering of lecture	
MLO 6 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	2 hours	drawing conclusions from the received data; - fixation of lecture material - mandatory preparation for the hospital,	2 hours
MLO 7 Carry out accounting reporting during professional activities.	consultations of students in the process of mastering OK - methodical registration of all types of students' works; - control of the educational process	2 hours	drawing up logs of the work of the enterprise or clinic - fixation of lecture material - mandatory preparation for the hospital, mastering the lecture material for the hospital.	2 hours

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

No	Summative assessment methods	Grades	Deadline
Autumn semester			
1.	Survey in laboratory-practical classes, notebook design	1 5/ 1 5%	3, 8, 12.15 weeks
2.	Design Abstract	15/15%	15 weeks
3.	Computer survey and analysis of students' knowledge (testing , current control)	4 5/ 4 5%	Week 17
4.	T ect multiple choice (exam)	2 5/ 2 5%	Week 18

5.3. Evaluation criteria

Autumn semester

Summative assessment method	Unsatisfactory	Satisfactory	Good	Excellent
Survey in laboratory-practical classes	< 6 points	6 - 8 points	9 - 12 points	13- 1 5 points
	The student has only some concepts, can not draw conclusions	Has a general concept of the topic, makes a significant amount of mistakes	Has all the questions, makes a small number of unprincipled mistakes	Fully masters all questions, does not make mistakes
Design Abstract	< 8 points	9-11 points	12-14 points	15 points
	Task not performed	The abstract is designed without	The abstract at a good level of analysis, synthesis,	The abstract is designed flawlessly, logically arranged material with an

		understanding the relationship between the tasks to be solved, not able to critically evaluate information from the literature	generalization and critical evaluation of data from literature sources cited in the Abstract , able to critically evaluate information from literature sources	understanding of the relationships of the processes disclosed on this topic, demonstrates a highly developed ability to critical academic 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 performed	The computer survey was performed without understanding the relationship between the tasks to be solved, unable to critically evaluate information from the literature	Computer survey performed 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 arranged material with an understanding of the relationships of the processes disclosed on this topic, demonstrates a highly developed ability to critical academic literature and other sources of information
T ect multiple choice (test)	< 10 points	10-14 points	15-24 points	2 5 points
	Task not performed	Task done by 50%	Task 75% completed	Task 100% done

5.2. Formative assessment

Formative exercises are designed to enable students to develop particular aspects of their learning, prior to summative assessments. Formative exercises are designed to help students use feedback and self-reflection to manage and develop their learning so that they can see how to improve their work.

№	Formative Assessment elements	Date
1	Survey in laboratory-practical classes, notebook design	According to the schedule
2	Design Abstract in	Within a week until the end of the educational process
3	Computer survey and analysis of students' knowledge (certification)	The last week of classes
4	Offset and sleep - multiple choice test	According to the exam schedule

6. LEARNING RESOURCES

6.1. Key resources

1. Bojrab, M. J., Waldron, D. R., & Toombs, J. P. (2014). *Current techniques in small animal surgery*.

2. Stoy, W. A. P. D. (2007). *Small animal surgery*. Place of publication not identified: Elsevier Mosby.

3. In Raftery, A. T., In Delbridge, M. S., & In Bridge, K. I. (2017). *Surgery*.

4. In King, L. G., & In Boag, A. (2018). *BSAVA manual of canine and feline emergency and critical care*.

5. Tutt, C., Deeprose, J., Crossley, D. A., & British Small Animal Veterinary Association. (2007). *BSAVA manual of canine and feline dentistry*. Quedgeley: British Small Animal Veterinary Association.

6. Baines, S. J., Lipscomb, V., Hutchinson, T., & British Small Animal Veterinary Association. (2012). *BSAVA manual of canine and feline surgical*

principles: A foundation manual. Quedgeley, Gloucester: British Small Animal Veterinary Association

7. *BSAVA Manual of Canine and Feline Advanced Veterinary Nursing, 2nd Edition*. (2014). BSAVA (British Small Animal Veterinary Association.

8. Fuller, J. R. (2017). *Surgical technology + workbook + surgical instrumentation, 2nd ed*. Place of publication not identified: Elsevier Saunders.

9. Fuller, J. R. (2017). *Surgical technology + workbook + surgical instrumentation, 2nd ed*. Place of publication not identified: Elsevier Saunders.

10. Lewis, D., & Langley-Hobbs, S. J. (2014). *Small Animal Orthopedics, Rheumatology and Musculoskeletal Disorders: Self-Assessment Color Review 2nd Edition*. Hoboken: CRC Press.

6.2. Guidelines

11. OCULOPLASTIC SURGERY ATLAS: Cosmetic facial surgery. (2019). Place of publication not identified: SPRINGER NATURE.

12. FAOSTAT, Food and Agriculture Organization of the United Nation. 2014. Accessed May 15, 2016. http://www.fao.org/faostat/en/#data/QA

13. Zicarelli L. Influence of seasonality on buffalo production In: Presicce GA, Editor. The Buffalo (Bubalus bubalis)–Production and Research. Ed. Bentham Books; 2017. pp. 196–224.

14. Giuffrida-Mendoza M, de Moreno A, Huerta-Leidenz N, Uzcátegui-Bracho S, Valero-Leal K, Romero S et al. Cholesterol and fatty acid composition of longissimus thoracis from water buffalo (Bubalus bubalis) and Brahman-influenced cattle raised under savannah conditions. Meat Science. 2015; 106: 44–9. doi: 10.1016/j.meatsci.2015.03.024 - DOI - PubMed

15. Voloski FL, Tonello L, Ramires T, Reta GG, Dewes C, Iglesias M et al. Influence of cutting and deboning operations on the microbiological quality and shelf life of buffalo meat. Meat Science. 2016; 116: 207–12. doi: 10.1016/j.meatsci.2016.02.020 - DOI - PubMed

16. Repenning PE, Ahola JK, Callan RJ, Fox JT, French JT, Giles RL et al. Effects of pain mitigation and method of castration on behavior and feedlot performance in cull beef bulls. Journal of Animal Science. 2013; 91(10): 4975–83. doi: 10.2527/jas.2012-6061 - DOI - PubMed