

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY NATIONAL AGRARIAN UNIVERSITY**

Department of Obstetrics and Surgery

" Approve"

Head of Department

(Kraevsky AI)

 " 06 _____ 2020

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE (SYLLABUS)

PP.33 Veterinary ophthalmology

Speciality: 211 Veterinarian of Medicine

Educational program: Veterinary Medicine

Faculty: veterinary medicine

2020 - 2021 academic year

Working program on Veterinary ophthalmology for students in the field of training: 211 Veterinary Medicine

Developer: PhD, associate professor A.Chekan



Work program approved at the meeting of the department obstetrics and surgery.

Protocol from " 22 " June 2020 year № 17

Head of
Department



(Kraevsky AY)

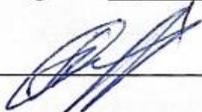
Agreed:

Guarantor of the educational program



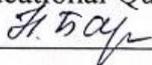
(L.G.Ulko)

Of the Faculty Dean



(O. L.Nechiporenko)

Methodist of the Department of Educational Quality,
licensing and accreditation



(A. Baranik)

Registered in electronic database: 08.07. 2020.

Description of the discipline

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the discipline
		full-time education
Number of credits - 3	Field of knowledge: 21 Veterinarian of Medicine	Normative
Modules - 2	Training direction: 211 Veterinary medicine	Year of preparation: 2020 -2021
Content modules: 4		Course
		4 m
		Semester 4
		8 semester
The total number of hours is 90		Lectures
Weekly hours for full-time study: classroom - 2 independent work of the student - 4	Education level: master	-
		Practical, seminar
		-
		Laboratory
		30 years
		Independent work
		60 years
		Individual tasks: -
	Type of control: test	

Note. The ratio of the number of hours of classroom classes to independent and individual work is: 33.33/66.66% (30/60).

1. The purpose and objectives of the discipline

Purpose : formation of a system of special theoretical knowledge and practical skills of conservative and surgical treatment of animals with ophthalmic pathology.

Objectives: to study the conditions of development of ophthalmic pathology, pathogenesis of certain diseases of different structures of the visual organ, local

features of the origin and course of pathology, differential diagnosis, therapeutic and preventive measures using conservative and surgical treatment of animals.

As a result of studying the discipline the student must:

know: Features of ophthalmic pathology in different species of farm animals. Etiological factors that cause eye diseases. Species features of conjunctivitis and keratitis in animals. Methods of stimulating therapy for inflammatory processes in the eye. Causes of diseases of the conjunctiva, eyelids, cornea and vascular tract. Methods of treatment for diseases of the cornea and conjunctiva.

be able to: Conduct research on ophthalmically ill animals. Conduct research on optical systems and protective devices of the visual organ. Diagnose, treat and prophylaxis of disease of the conjunctiva, eyelids, corneal and vascular tract.

3. The program of the discipline

(approved by the Department of Agrarian Education, Science and Advisory of the Ministry of Agrarian Policy of Ukraine on April 6, 2010)

Module 1. Structure and physiology of the organ of vision. Diseases of the protective devices of the visual organ.

Content module 1. Structure and physiology of the visual organ . Diseases of the protective devices of the visual organ (*diseases of the eyelids, diseases of the lacrimal apparatus*) .

Topic 1: Structure and physiology of the visual organ. Study of the structure of the eye and aids. Study of the physiology of the visual organ. Determination of accommodation and refraction and its anomalies: emetropia, hyperopia , astigmatism, anisometry.

Topic 2: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 1.). Study of eyelid diseases. Study of eyelid wounds and methods of treatment. Study of torsions and inversions of the eyelids.

Topic 3: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 2.). Study of classification and forms of blepharitis. Study of treatments for blepharitis.

Topic 4: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 1.). Study of the functional morphology of the lacrimal apparatus. Determination of diseases of the lacrimal apparatus . Study of methods of research of the lacrimal apparatus.

Topic 5: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 2.). Study of clinical forms of lacrimal gland inflammation and methods of treatment. Study of clinical forms of lacrimal lake

inflammation and methods of treatment. Study of clinical forms of obstruction and narrowing of the nasolacrimal canal and methods of treatment.

Content module 2. Diseases of the protective devices of the visual organ
(*diseases of the conjunctiva, diseases of the retrobulbar tissue, periorbitis and sclera, operations in the eye*) .

Topic 6: Diseases of the protective devices of the visual organ (diseases of the conjunctiva). Study of clinical forms of conjunctivitis and diagnostic methods. Study of treatments for conjunctivitis.

Topic 7: Diseases of the protective devices of the visual organ (diseases of the retrobulbar tissue, periorbitis and sclera). Study of clinical forms of diseases of retrobulbar tissue, periorbitis and sclera and diagnostic methods. Study of treatment methods for diseases of retrobulbar tissue, periorbitis and sclera .

Topic 8: Diseases of the protective devices of the visual organ (operations in the eye). Study of evisceration of the eye. Study of eye enucleation. Study of eye socket exenteration .

Module 2. Diseases of light refracting media of the visual organ and vascular tract.

Content module 3. Diseases of light-refracting media of the organ of vision
(*diseases of the cornea, part 1,2, diseases of the lens, diseases of the vitreous and the circulation of intraocular fluid*) .

Topic 9. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 1.). Study of the general classification of corneal diseases . Study of traumatic corneal injuries and methods of treatment . Study of dystrophic diseases of the cornea and methods of treatment .

Topic 10. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 2.). Study of inflammatory processes of the cornea - keratitis and their diagnosis . Study of treatment methods for keratitis . Study of corneal ulcers and methods of treatment.

Topic 11. Diseases of light-refracting media of the organ of vision (lens diseases). Study of acquired and congenital anomalies of the lens and diagnostic methods . Study of cataracts and methods of treatment . Study of operative methods of treatment for lens pathology.

Topic 12. Diseases of light-refracting media of the visual organ (diseases of the vitreous and circulation of intraocular fluid). Study of forms and types of turbidity of the vitreous. Study of forms and types of pathology of intraocular fluid circulation . Study of methods of conservative and operative treatment in pathology of intraocular fluid circulation .

Content module 4. Diseases of the vascular tract (*iritis, cyclitis , iridocyclitis, choroiditis , retinitis, chorioretinitis*) .

Topic 13. Diseases of the vascular tract (part 1). Study of the functional morphology of the vascular tract. Study of the classification of inflammation of the vascular tract (uveitis). Study of the reasons for the development of various forms of uveitis in animals.

Topic 14. Diseases of the vascular tract (part 2). Study of forms and types of anterior uveitis (iritis, cyclitis, iridocyclitis) . Study of methods for the diagnosis of anterior uveitis . Study of methods of treatment of anterior uveitis .

Topic 15. Diseases of the vascular tract (part 3). Study of forms and types of middle and posterior uveitis (choroiditis , retinitis) . Study of methods for diagnosing middle and posterior uveitis . Study of methods of treatment of middle and posterior uveitis .

4. The structure of the discipline

Names of content modules and topics	Number of hours					
	Everything	including				
		l	n	lab	ind	s.r .
1	2	3	4	5	6	7
Module 1. Structure and physiology of the organ of vision. Diseases of the protective devices of the visual organ.						
Content module 1.						
Structure and physiology of the organ of vision . Diseases of the protective devices of the visual organ (<i>diseases of the eyelids, diseases of the lacrimal apparatus</i>) .						
Topic 1: Structure and physiology of the visual organ.	6	-	-	2	-	4
Topic 2: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 1).	6	-	-	2	-	4
Topic 3: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 2).	6	-	-	2	-	4
Topic 4: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 1).	6	-	-	2	-	4
Topic 5: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 2).	6	-	-	2	-	4

Together on the content module 1	30	-	-	10	-	20
Content module 2.						
Diseases of the protective devices of the visual organ (<i>diseases of the conjunctiva, diseases of the retrobulbar tissue, periorbitis and sclera, surgery in the eye</i>) .						
Topic 6: Diseases of the protective devices of the visual organ (diseases of the conjunctiva).	6	-	-	2	-	4
Topic 7: Diseases of the protective devices of the visual organ (diseases of the retrobulbar tissue, periorbitis and sclera).	6	-	-	2	-	4
Topic 8: Diseases of the protective devices of the visual organ (operations in the eye).	6	-	-	2	-	4
Together on the content module 3	18	-	-	6	-	12
Total hours	18	-	-	6	-	12
Module 2. Diseases of light refracting media of the visual organ and vascular tract.						
Content module 3.						
Diseases of light-refracting media of the visual organ (<i>diseases of the cornea, part 1,2, diseases of the lens, diseases of the vitreous and circulation of intraocular fluid</i>) .						
Topic 9. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 1.).	6	-	-	2	-	4
Topic 10. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 2.).	6	-	-	2	-	4
Topic 11. Diseases of light-refracting media of the organ of vision (lens diseases).	6	-	-	2	-	4
Topic 12. Diseases of light-refracting media of the visual organ (diseases of the vitreous and circulation of intraocular fluid).	6	-	-	2	-	4

Together on the content module 3	24		-	8	-	16
Content module 4.						
Diseases of the vascular tract (<i>iritis, cyclitis, iridocyclitis, choroiditis, retinitis, chorioretinitis</i>)						
Topic 13. Diseases of the vascular tract (part 1.).	6	-	-	2	-	4
Topic 14. Diseases of the vascular tract (part 2.).	6	-	-	2	-	4
Topic 15. Diseases of the vascular tract (part 3.).	6	-	-	2	-	4
Together on the content module 4	18	-	-	6	-	12
Total hours	90	-	-	30	-	60

6. Topics of laboratory classes

№ s / n	Name topics	Number hours
1	Topic 1: Structure and physiology of the visual organ. 1. Study of the structure of the eye and aids. 2. The study of the physiology of the visual organ. 3. Determination of accommodation and refraction and its anomalies: emetropia, hyperopia, astigmatism, anisometry.	2
2	Topic 2: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 1.). 1. The study of eyelid diseases. 2. Study of eyelid wounds and methods of treatment. 3. The study of torsions and inversions of the eyelids.	2
3	Topic 3: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 2.). 1. Study of classification and forms of blepharitis. 2. Study of treatment for blepharitis.	2
4	Topic 4: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 1.). 1. Study of the functional morphology of the lacrimal apparatus. 2. Determination of diseases of the lacrimal apparatus. 3. Study of methods of research of the lacrimal apparatus.	2
5	Topic 5: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 2.). 1. Study of clinical forms of inflammation of the lacrimal gland and methods of treatment.	2

	<p>2. Study of clinical forms of lacrimal lake inflammation and methods of treatment.</p> <p>3. Study of clinical forms of obstruction and narrowing of the nasolacrimal canal and methods of treatment.</p>	
6	<p>Topic 6: Diseases of the protective devices of the visual organ (diseases of the conjunctiva).</p> <p>1. Study of clinical forms of conjunctivitis and diagnostic methods.</p> <p>2. Study of treatment for conjunctivitis.</p>	2
7	<p>Topic 7: Diseases of the protective devices of the visual organ (diseases of the retrobulbar tissue, periorbitis and sclera).</p> <p>1. Study of clinical forms of diseases of retrobulbar tissue, periorbitis and sclera and diagnostic methods.</p> <p>2. Study of treatment methods for diseases of retrobulbar tissue, periorbitis and sclera .</p>	2
8	<p>Topic 8. Diseases of the protective devices of the visual organ (surgery in the eye).</p> <p>1. The study of evisceration of the eye.</p> <p>2. Study of enucleation of the eye.</p> <p>3. The study of exenteration of the orbit .</p>	2
9	<p>Topic 9. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 1.).</p> <p>1. Study of the general classification of corneal diseases .</p> <p>2. Study of traumatic corneal injuries and methods of treatment .</p> <p>3. Study of dystrophic diseases of the cornea and methods of treatment .</p>	2
10	<p>Topic 10. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 2.).</p> <p>1. Study of inflammatory processes of the cornea - keratitis and their diagnosis .</p> <p>2. Study of treatment methods for keratitis .</p> <p>3. Study of corneal ulcers and methods of treatment.</p>	2
11	<p>Topic 11. Diseases of light-refracting media of the organ of vision (lens diseases).</p> <p>1. Study of acquired and congenital anomalies of the lens and diagnostic methods .</p> <p>2. Study of cataracts and methods of treatment .</p> <p>3. Study of operative methods of treatment for lens pathology.</p>	2
12	<p>Topic 12. Diseases of light-refracting media of the visual organ (diseases of the vitreous and circulation of intraocular fluid).</p> <p>1. Study of forms and types of vitreous turbidity.</p> <p>2. Study of forms and types of pathology of intraocular fluid circulation .</p>	2

	3. Study of methods of conservative and operative treatment in pathology of intraocular fluid circulation .	
13	Topic 13. Diseases of the vascular tract (part 1.). 1. Study of the functional morphology of the vascular tract. 2. Study of the classification of vascular inflammation (uveitis). 3. Study of the reasons for the development of various forms of uveitis in animals.	2
14	Topic 14. Diseases of the vascular tract (part 2.). 1. Study of forms and types of anterior uveitis (iritis, cycles, iridocyclites) . 2. Study of methods for diagnosing anterior uveitis . 3 Study of methods of treatment of anterior uveitis .	2
15	Topic 15. Diseases of the vascular tract (part 3.). 1. Study of forms and types of middle and posterior uveitis (choroiditis , retinitis) . 2. Study of methods of diagnosis of middle and posterior uveitis . 3 Study of methods of treatment of middle and posterior uveitis .	2
<i>Together:</i>		30

7. Independent work

№ s / n	Name topics	Number hours
1	Topic 1: Structure and physiology of the visual organ.	4
2	Topic 2: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 1.).	4
3	Topic 3: Diseases of the protective devices of the visual organ (diseases of the eyelids, part 2.).	4
4	Topic 4: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 1.)	4
5	Topic 5: Diseases of the protective devices of the visual organ (diseases of the lacrimal apparatus, part 2.).	4
6	Topic 6: Diseases of the protective devices of the visual organ (diseases of the conjunctiva).	4
7	Topic 7: Diseases of the protective devices of the visual organ (diseases of the retrobulbar tissue, periorbitis and sclera).	4
8	Topic 8. Diseases of the protective devices of the visual organ (surgery in the eye).	4
9	Topic 9. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 1.).	4

10	Topic 10. Diseases of light-refracting media of the organ of vision (diseases of the cornea, part 2.).	4
11	Topic 11. Diseases of light-refracting media of the organ of vision (lens diseases).	4
12	Topic 12. Diseases of light-refracting media of the visual organ (diseases of the vitreous and circulation of intraocular fluid).	4
13	Topic 13. Diseases of the vascular tract (part 1.).	4
14	Topic 14. Diseases of the vascular tract (part 2.).	4
15	Topic 15. Diseases of the vascular tract (part 3.).	4
Together:		60

8. Teaching methods

1. Methods of learning by source of knowledge:

1.1. *Verbal* : story, explanation, lecture, work with a book (reading, writing, taking notes, making reference notes, etc.).

1.2. *Visual* : demonstration of educational videos and surgical interventions on live animals.

1.3. *Practical* : practical work (preparation of instruments, operating field and hands of the surgeon, performance of operative interventions, imposing of bandages), production and practical methods (trips to the farm).

2. Teaching methods by the nature of the logic of cognition.

2.1. *Analytical* : study of surgical interventions on individual organs and body parts of animals.

2.2. *Methods of synthesis*: anamnesis analysis, clinical study of a sick animal.

2.3. *Inductive method*: study of organ topography, determination of optimal operative access and performance of operative reception.

3. Teaching methods by the nature and level of independent mental activity of students.

3.1. *Partial search (heuristic)*: at the request of the teacher search for data on the Internet, literature sources.

3.2. *Reproductive* : application of the studied theoretical material in practice.

3.3. *Explanatory-demonstrative*: explanation of unclear issues with the demonstration, tables, diagrams, photos and videos. Demonstration of operative methods on live animals.

4. Active teaching methods - the use of technical teaching aids (multimedia lectures), classes in production, self-assessment of knowledge, simulation teaching methods - the implementation of situational tasks using training and control tests, the use of reference notes of lectures.

Assessment scale: national and ECTS

The sum of points for all types of educational activities	ECTS assessment	Score on a national scale	
		for exam, course project (work), practice	for offset
90 - 100	AND	perfectly	credited
82-89	IN	fine	
74-81	WITH		
64-73	D	satisfactorily	
60-63	IS		
35-59	FX	unsatisfactory with the possibility of reassembly	not credited with the possibility of re-assembly
0-34	F	unsatisfactory with mandatory re-study of the discipline	not enrolled with mandatory re-study of the discipline

11. Methodical support

1. Surgical diseases of the finger of cattle // Guidelines for students of the Faculty of Veterinary Medicine and students of the Institute of Postgraduate Studies. Bila Tserkva, 1996. -31 p.
2. Operative surgery with the basics of topographic anatomy: Novocaine blockade as a method of pathogenetic therapy: guidelines for preparation for practical classes / Kraevsky AY, Saletskaya OV etc. - Sumy, 2011. - 24 p.
3. Operative surgery with the basics of topographic anatomy: Spinal anesthesia: guidelines for independent preparation for practical classes / Ponomarenko VP, Saletskaya OV, Voshchenko IB - Sumy, 2010. - 26 p.

12. Recommended literature

Basic

1. General veterinary surgery / I.S. Panko, VM Власенко , М.В. Rublenko and others; edited by I.S. Panko (second edition, supplemented and revised) - Bila Tserkva: Bila Tserkva State Agrarian University, 2008. - 328 p.
2. Special veterinary surgery / IS Panko, VM Власенко , А.А. Hamota , etc .; edited by I.S. Panko. - Bila Tserkva: BSAU, 2003. - 416 p
3. General veterinary surgery / / I.S. Panko, VM Власенко , В.Й. Izdepsky and others. - Bila Tserkva: BSAU, 1999. - 264
4. Vlasenko VM, Tikhonyuk LA Veterinary anesthesiology. Bila Tserkva, 200. - 336 p.
5. Veterinary orthopedics, hooves and hoof disease: guidances . for students . agrarian . bookmark . Education I-IV level of

- accreditation with special. "Veterinary medicine" / V.B. Борисевич , Б.В. Борисевич , О.Ф. Петренко, Н.М. Khomin - К .: ДІА, 2007. - 136 p.
6. Tumors of animals: etiology, pathogenesis, diagnosis, complex therapy / АА Гамота , В.І. Zaviryukha, Ya.G. Krupnik, А.Р. Misak . - Lviv: Halytska vydavnycha spilka, 2007. - 168 p.
7. Borisevich VB, Borisevich BV etc. Veterinary and medical ophthalmology: Textbook / Ed .. V.B. Borisevich . - К .: Арістей , 2006. - 212 с.
8. General veterinary surgery / VB Борисевич , Б.В. Борисевич , О.Ф. Петренко, Н.М. Номин: for the editor . V.B. Borysevycha , - К .: Scientific World, 2001. - 274 p.
9. Kalashnik IA, Labunsky VM, Meredorya VL, Rusinov AO Workshop on general surgery . М. Kolos, 1992.
10. Private veterinary surgery / BS Semenov, A.V. Lebedev, A.N. Eliseev et al., Ed. B.S. Semenova and A.V. Лебедева. - М .: Колос, 1997. - 496 с.

Auxiliary

1. Surgical diseases of agricultural animals / КІ Шакалов , И.А. Kalashnik , VA Lukyanovsky et al. М .: Agropromizdat , 1987.
2. Lukyanovsky VA, Belov AD, Belyakov LM Diseases of the skeletal system of animals . - М .: Колос. - 1984.
3. Shakalov KI Profylaklyka injuries selskohozyaystvennyh animals in promshlennyh complexes. М. Kolos, 1981.
4. Izdepsky VY, Stotsky OG, Kharenko MI etc. Physiotherapy for non-communicable animal diseases. - Sumy, 2006. - 132 p.