

**CABINET OF MINISTERS OF UKRAINE
NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES OF UKRAINE**

**CURRICULUM
training of specialists since 2013 year of admission to university**

Educational and qualification level	“Master”
Field of knowledge	1101 “Veterinary”
Specialty	8.11010101 “Veterinary medicine (by types)”
Specialization	production
Master programs:	“Veterinary service health of dogs and cats”; “Veterinary preventive technologies of animal health”; “Methods of biochemical researches”; microbiological diagnostic methods in animal husbandry”; “Veterinary and sanitary examination of agricultural and food production”; “Veterinary supply of stockbreeding, sheepbreeding and goatbreeding”
Form of training	full-time education
Duration of training	2 years
Qualification	Doctor of veterinary medicine
	Are implemented master programs:
ERI	Veterinary Medicine, Quality and Safety of Livestock Products
ERC	ERC of veterinary medicine of productive, home and exotic animals
Faculty	Veterinary Medicine
Department	Obstetrics, Gynecology and Biotechnology of Animal Reproduction; Animal Anatomy named after Acad. V.G. Kasyanenko; Veterinary and Sanitary Examination; Hygiene and Sanitation named after A.K. Skorokhodka; Epizootiology of Organization of Veterinary Business; Parasitology and Tropical Veterinary Medicine; Pathological Anatomy; Therapy and Clinical Diagnostics; Pharmacology and Toxicology; Surgery named after prof. I. Povazhenko

I. TRAINING PROCESS SCHEDULE

**a) for training specialists of EQL “Master” on EQL “Bachelor” 2013 university entrance
specialty 8.11010101 “Veterinary Medicine (by types)”**

Year of education	2013 year																		2014 year																																		
	September				30	October			28	November				December				30	January			27	February			24	March			31	April			28	May				June				30	July			28	August					
	2	9	16	23	IX	7	14	21	X	4	11	18	25	2	9	16	23	XII	6	13	20	I	3	10	17	II	3	10	17	24	III	7	14	21	IV	5	12	19	26	2	9	16	23	VI	7	14	21	VII	4	11	18	25	
	7	14	21	28	X	12	19	26	XI	9	16	23	30	7	14	21	28	I	11	18	25	II	8	15	22	III	8	15	22	29	IV	12	19	26	V	10	17	24	31	7	14	21	28	VII	12	19	26	VIII	9	16	23	30	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
I																		-	-	-	-	:																			O	O	:	:	:	-	-	-	-	-	-	-	-
																		=	=	=	=	:																			O	O	:	:	:	=	=	=	=	=	=	=	=
Year of education	2014 year																		2015 year																																		
	September				29	October			27	November				December				29	January			February			March			30	April			27	May				June				29	July			27	August							
	1	8	15	22	IX	6	13	20	X	3	10	17	24	1	8	15	22	XII	5	12	19	26	2	9	16	23	2	9	16	23	III	6	13	20	IV	4	11	18	25	1	8	15	22	VI	6	13	20	VII	3	10	17	24	
	6	13	20	27	X	11	18	25	XI	8	15	22	29	6	13	20	27	I	10	17	24	31	7	14	21	28	7	14	21	28	IV	11	18	25	V	9	16	23	30	6	13	20	27	VII	11	18	25	VIII	8	15	22	29	
	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	
II																		-	-	:															X	X	X	X	X	X	II	II	II	II	//	//							

**б) for training specialists of EQL “Master” on EQL “Bachelor” 2012 university entrance
specialty 8.11010101 “Veterinary Medicine (by types)”**

Year of education	2013 pik																		2014 pik																																	
	September				30	October			28	November				December				30	January			27	February			24	March			31	April			28	May				June				30	July			28	August				
	2	9	16	23	IX	7	14	21	X	4	11	18	25	2	9	16	23	XII	6	13	20	I	3	10	17	II	3	10	17	24	III	7	14	21	IV	5	12	19	26	2	9	16	23	VI	7	14	21	VII	4	11	18	25
	7	14	21	28	X	12	19	26	XI	9	16	23	30	7	14	21	28	I	11	18	25	II	8	15	22	III	8	15	22	29	IV	12	19	26	V	10	17	24	31	7	14	21	28	VII	12	19	26	VIII	9	16	23	30
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
II																		-	-	:															X	X	X	X	X	X	II	II	II	II	//	//						

Legend:

- | | | | | | | | | | | | | | |
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| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></td> <td style="padding-left: 5px;">- Theoretical education</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; text-align: center;">:</td> <td style="padding-left: 5px;">- Examination period</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; text-align: center;">-</td> <td style="padding-left: 5px;">- Vacations</td> </tr> </table> | | - Theoretical education | : | - Examination period | - | - Vacations | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; text-align: center;">X</td> <td style="padding-left: 5px;">- Production practice</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; text-align: center;">II</td> <td style="padding-left: 5px;">- Preparing of Master thesis</td> </tr> <tr> <td style="border: 1px solid black; width: 20px; height: 20px; display: inline-block; text-align: center;">//</td> <td style="padding-left: 5px;">- State certification (state examination and defencing of Master thesis)</td> </tr> </table> | X | - Production practice | II | - Preparing of Master thesis | // | - State certification (state examination and defencing of Master thesis) |
| | - Theoretical education | | | | | | | | | | | | |
| : | - Examination period | | | | | | | | | | | | |
| - | - Vacations | | | | | | | | | | | | |
| X | - Production practice | | | | | | | | | | | | |
| II | - Preparing of Master thesis | | | | | | | | | | | | |
| // | - State certification (state examination and defencing of Master thesis) | | | | | | | | | | | | |

II. PLAN OF EDUCATIONAL PROCESS

№	Courses	Total amount		Form of knowledge control (per semester)			Lecture sessions (hours)					Individual work	Practical training		Week distribution of hours per years of study and per semesters			
		Hours	Credits	Exam	Test	Term paper	All	including					Educational practice	Production practice	1 st year of study		2 nd year of study	
								Lectures	Laboratory classes	Practical classes	Seminar classes				1	2	3	4
		amount of weeks is in a semester																
		17		17		17		13										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
I. NORMATIVE EDUCATIONAL COURSES																		
1. 1. Cycle of courses of social and humanitarian training*																		
1	Foreign language in professional activity	36	1		x		17			17		19			1			
2	Information technologies in veterinary medicine	36	1		x		34				34	2			2			
3	Philosophy of science and innovation development	36	1		x		17				17	19			1			
4	Labor protection in veterinary medicine	36	1	x			17			17		19			1			
5	Civil defense	36	1		x		17			17		19			1			
All		180	5	1	4		102			51	51	78			6			
1.2. Cycle of courses of fundamental sciences, natural sciences and general economic training*																		
1	Comparative morphology, special pathomorphology and veterinary forensic science	90	2,5	x			34	17	17			56			2			
2	Veterinary legislation of Ukraine and international veterinary regulations	90	2,5	x			34			34		56			2			
3	Methodology of scientific research	90	2,5		x		34	17		17		56			2			
All		270	7,5	2	1		102	34	17	51		168			6			
1.3. Cycle of courses of professional and practical training*																		
1	Obstetrics, gynecology and biotechnology of animal reproduction	90	2,5	x			34	17	17			56			2			
2	Special propaedeutic, therapy and prevention of domestic animal internal diseases	108	3	x			34	17	17			74			2			

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
3	Surgical diseases with anesthesiology	108	3	x			34	17	17			74				2		
4	Special epizootology	108	3	x			34	17	17			74				2		
5	Global parasitology	108	3	x			34	17	17			74				2		
All		522	14,5	5			170	85	85			352				10		
All normative part		972	27	8	5		374	119	102	102	51	598			12	10		
2. SELECTIVE COURSES																		
2.1. Cycle of courses of social and humanitarian training* chosen by university																		
1	Foreign language in professional activity	36	1				17			17		19			1			
2	Information technologies in veterinary medicine	36	1				17			17		19			1			
3	Philosophy of science and innovation development	36	1				17	17				19			1			
2.1.1. Cycle of social and humanitarian training* chosen by the student																		
1	Foreign language in professional activity	36	1									36						
2	Information technologies in veterinary medicine	36	1									36						
Total number for the cycle of courses of social and humanitarian training (selective part)		180	5				51	17		34		129			3			
2.2. Cycle of courses of fundamental sciences, natural sciences and general economic training* chosen by university*																		
1	Comparative morphology, special pathomorphology and veterinary forensic science	54	1,5				17		17			37			1			
2	Veterinary legislation of Ukraine and international veterinary regulations	54	1,5				17	17				37			1			
3	Methodology of scientific research	36	1				17			17		19			1			
2.2.1. Cycle of courses of fundamental sciences, natural sciences and general economic training* chosen by the student																		
1	Comparative morphology, special pathomorphology and veterinary forensic science	54	1,5									54						
2	Veterinary legislation of Ukraine and international veterinary regulations	36	1									36						
3	Methodology of scientific research	36	1									36						
Total number for the cycle of courses of fundamental sciences, natural sciences and general economic training (selective part)		270	7,5				51	17	17	17		219			3			
2.3. Cycle of courses of professional and practical training* chosen by university																		
1	Obstetrics, gynecology and biotechnology of animal reproduction	72	2				17		17			55				1		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
2	Special propaedeutic, therapy and prevention of domestic animal internal diseases	54	1,5				17		17			37				1		
3	Surgical diseases with anesthesiology	54	1,5				17		17			37				1		
4	Special epizootology	54	1,5				17		17			37				1		
5	Global parasitology	54	1,5				17		17			37				1		
6	State veterinary and sanitary examination	108	3	x			51	17	34			57				3		
2.3.1. Cycle of courses of professional and practical training* chosen by the student																		
1	Obstetrics, gynecology and biotechnology of animal reproduction	54	1,5									54						
2	Special propaedeutic, therapy and prevention of domestic animal internal diseases	54	1,5									54						
3	Surgical diseases with anesthesiology	54	1,5									54						
4	Special epizootology	54	1,5									54						
5	Global parasitology	54	1,5									54						
Total number for the cycle of courses of professional and practical training selective part)		666	18,5	1			136		119			530				8		
Master programs																		
“Methods of biochemical studies”																		
1	Modern methods and devices of biochemical studies	720	20	x			204	68	136			516					12	
2	Special biochemistry	720	20	x	x		258	129	129			462					6	12
3	Quality management of the laboratory	288	8	x		x	78	39	39			210						6
All		1728	48	3	1	1	540	236	304			1188					18	18
“Microbiological diagnostic methods in animal husbandry and veterinary medicine”																		
1	Biology of microorganisms	648	18	x	x		193	90	103			455					6	7
2	Methods of microbiological researches	720	20	x	x		269	107	162			451					12	5
3	Quality management of the laboratory	360	10	x		x	78	39	39			282						6
All		1728	48	3	2	1	540	236	304			1188					18	18
“Veterinary-sanitary examination of agricultural and food products”																		
1	Food and feed hygiene	540	15	x			204	85	119			336					12	
2	Veterinary-sanitary methods of food and feed examination	360	10	x			102	34	68			258					6	
3	Quality management of the laboratory	396	11	x		x	78	39	39			318						6
4	Analysis of microbiological hazards in food and feed	432	12	x			156	52	104			276						12
All		1728	48	4		1	540	210	330			1188					18	18
“Veterinary preventive technologies of providing animal’s health”																		
1	Preventive technologies of providing health of	1080	30	x	x		325	137	188			755					13	8

	productive animals																	
2	Preventive technologies of providing health of small domestic and exotic animals	288	8	x			85	34	51			203					5	
3	Preventive technologies of providing of horses's health	360	10	x			130	65	65			230					10	
Totally		1728	48	3	1		540	236	304			1188					18	18
“Veterinary cervice of livestock, sheep and goats”																		
1	Innovative technologies of feeding, genetics and breeding in cattlebreeding, sheepbreeding and goatsbreeding	288	8	x			102	34	68			186					6	
2	Preventive veterinary technologies of noncontagious diseases of ruminants	900	25	x	x		266	107	159			634					8	10
3	Preventive veterinary technologies of contagious diseases of ruminants	540	15	x	x		172	60	112			368					4	8
Totally		1728	48	3	2		540	201	339			1188					18	18
“Veterinary supply of the dogs and cats health”																		
1	Innovative technologies of feeding, genetics and breeding of small animals	288	8	x			102	34	68			186					6	
2	Preventive veterinary technologies of noncontagious diseases of dogs and cats	900	25	x	x		292	107	185			608					8	12
3	Preventive veterinary technologies of contagious diseases of dogs and cats	540	15	x	x		146	60	86			394					4	6
Totally		1728	48	3	1		540	201	339			1188					18	18
“Veterinary Pharmacy”																		
1	Pharmacognosy, pharmaceutical and toxicological chemistry	468	13	x			170	68	102			298					10	
2	Pharmacy and pharmaceutical technology	432	12	x		x	136	51	85			296					8	
3	Clinical veterinary pharmacology and clinical veterinary pharmacy	432	12	x		x	117	52	65			315						9
4	Preclinical and clinical studies of medicines	396	11	x			117	52	65			279						9
Totally		1728	48	4		2	540	223	317			1188					18	18
“Veterinary service horse breeding”																		
1	Innovative technologies of feeding, genetics and breeding horses	360	10	x			102	34	68			258					6	
2	Preventive veterinary technologies of noncontagious disease of horses	684	19	x	x		219	90	129			465					6	9
3	Preventive veterinary technologies of contagious disease of horses	684	19	x	x		219	86	133			465					6	9
Totally		1728	48	3	2		540	210	330			1188					18	18

“Veterinary-sanitary inspection, safety and quality of foodstuffs and fodder”																		
1	Hygiene of milk and milk products	576	16	x	x		155	56	99			421					3	8
2	Hygiene primary processing of animals and products of slaughter	432	12	x			136	68	68			296					8	
3	Hygiene products of animal origin and plant foodstuffs	720	20	x	x		249	90	159			471					7	10
Totally		1728	48	3			540	214	326			1188					18	18
“Veterinary service pig production”																		
1	Innovative technologies of feeding, genetics and breeding pigs	360	10	x			102	34	68			258					6	
2	Preventive veterinary technologies of noncontagious diseases of pigs	684	19	x	x		206	90	116			478					6	8
3	Preventive veterinary technologies of contagious disease of pigs	684	19	x	x		232	90	142			452					6	10
Totally		1728	48	3	2		540	214	326			1188					18	18
“Veterinary supply of the exotic and wild animals health”																		
1	Housing, feeding and reproduction of exotic and wild animals	216	6	x		x	68	34	34			148					4	
2	Modern diagnostics of non-communicable diseases and treatment of exotic and wild animals in the non-contagious pathology	756	21	x	x		223	77	146			533					7	8
3	Infectious diseases of exotic and wild animals	396	11		x		119	51	68			277					7	
4	Parasitic diseases of exotic and wild animals	360	10	x		x	130	52	78			230						10
Totally		1728	48	3	2	2	540	214	326			1188					18	18
“Veterinary support of fishery”																		
1	Sanitation and hygiene in fishery	540	15	x	x	x	206	60	146			334					6	8
2	Diseases of fish	504	14	x	x		120	60	60			384					4	4
3	Hygiene and Sanitation fish processing enterprises	396	11	x			146	60	86			250					4	6
4	Aquaculture	288	8	x	x		68	34	34			220					4	
Totally		1728	48		3	1	540	214	326			1188					18	18
“Veterinary hygiene and sanitation”																		
1	Animal farming waste and recycling	432	12	x	x		120	60	60			312					4	4
2	Special animal care	432	12	x	x	x	188	60	128			244					8	4
3	Veterinary sanitation	288	8	x			52	26	26			236						4
4	Animal health	576	16	x	x		180	60	120			396					6	6
Totally		1728	48	4	3	1	540	206	334			1188					18	18
“Pathomorphological diagnostics of animal diseases”																		
1	Quality management of the laboratory activity	288	8	x		x	78	39	39			210						6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
2	Pathomorphology animals by species	720	20	x	x		292	107	185			428					8	12	
3	Fundamentals of histological techniques	720	20	x			170	17	153			550					10		
Totally		1728	48	3	1	1	540	163	377			1188					18	18	
“Veterinary ensuring of poultry farming”																			
1	Innovative Technologies for housing, feeding, genetics and breeding of poultry	360	10	x			102	34	68			258					6		
2	Preventive veterinary technologies noncontagious diseases of poultry	684	19	x	x		240	107	133			444					8	8	
3	Preventive veterinary technologies contagious poultry diseases	684		x	x		198	73	125			486					4	10	
Totally		1728	48	3	2		540	214	326			1188					18	18	
“Biomorphology and plastination of vertebrates”																			
1	Anatomical museum appliances	396	11	x			136	34	102			260					8		
2	Evolutionary biomorphology of vertebrates	684	19	x	x		228	86	142			456					5	11	
3	Methods scientific morphological investigations	648	18	x	x		176	73	103			472					5	7	
Totally		1728	48	3	2		540	193	347			1188					18	18	
“Cellular technologies in veterinary medicine and biology”																			
1	Clinical pathophysiology of animals	504	14	x	x		163	60	103			341					5	6	
2	Molecular biology of the cell	252	7		x		68	51	17			184					4		
3	Theory and practice of using stem cells in veterinary medicine	468	13	x	x		163	60	103			305					5	6	
4	Oncology and transplantation in veterinary medicine	252	7		x		78	39	39			174						6	
5	Molecular mechanisms of cellular and humoral immunity in animals	252	7		x		68	34	34			184					4		
TOTAL MASTER PROGRAM		1728	48	2	5		540	244	296			1188					18	18	
“Physiology of higher nervous activity of animals”																			
1	Physiology of higher nervous activity and zoopsychology	828	23	x	x		253	120	133			575					8	9	
2	Pathophysiology of higher nervous activity	504	14	x	x		197	60	137			307					7	6	
3	Pharmacodynamics and pharmacokinetics of medicines	216	6		x		51	17	34			165					3		
4	Histology of the nervous and endocrine systems	180	5		x		39	13	26			141						3	
Totally		1728	48	2	4		540	210	330			1188					18	18	
The total number of selective component		2736	76				727	235	441	51		2009					18	18	
Practical training		288	8																
Preparation and defense of master's thesis		216	6																
Number of tests					5														
Number of examinations				12															
Total for eq1 “Master”		4320	120	12	5		1152	371	577	153	51	2664	72	216	18	18	18	18	

* Names of cycles of disciplines as required by industry standards for higher education, approved on 27.08.2010, the EQC and OPP

III. STRUCTURE OF THE CURRICULUM

Educational disciplines	Hours	Credits	%
1. Normative educational disciplines			
1.1. Cycle of disciplines of social and humanitarian training*	180	5	4,2
1.2. Cycle of fundamental sciences, natural and scientific, general economic training*	270	7,5	6,2
1.3. Cycle of disciplines professional and practical training*	630	17,5	14,6
2. Selective courses			
2.1. Elective disciplines by the University			
2.1.1. Cycle of the disciplines of social and humanitarian training*	108	3	2,5
2.1.2. Cycle of the fundamental, natural and scientific, general economic training*	144	4	3,3
2.1.3. Cycle of the disciplines of professional and practical training*	288	8	6,7
2.2. Disciplines chosen by the student (including master's program)	2196	61	50,8
3. Other types of workload	504	14	11,7
Total for EQL "Master"	4320	120	100

* Names of cycles of disciplines as required by industry standards for higher education, approved on 27.08.2010, the EQC and OPP

IV. SUMMARIZED DATA OF BUDGET TIME, WEEKS

Years	Theoretical training	Examination period	Practical training	Preparation of master's thesis	State certification	Vacations	Total
1	34	4	2			12	52
2	30	2	6	4	2	2	46
Total for EQL	64	6	8	4	2	14	98

V. PRACTICAL TRAINING

№	Name of the practice	Number of weeks	The complexity of educational activity of student		Form of control
			hours	ECTS	
1	Obstetrics, gynaecology and biotechnology of animal's reproduction	0,5	18	0,5	Report
2	Special propaedeutics, therapy and prevention of animal's internal diseases	0,5	18	0,5	Report
3	Surgical diseases with anesthesiology	0,2	12	1,0 credit on three disciplines	Report
4	Special epizootology	0,2	12		Report
5	Parasite cenosis	0,2	12		Report
Production practice					
	Master's practice	6	216	6	Report

VII. STATE CERTIFICATION

№	Component of certification	Hours	Credits	Number of weeks
1	Preparation and defense of master's thesis	216	6	6