

**Ministry of Agriculture of the Republic of Kazakhstan
S.Seifullin Kazakh Agrotechnical University**

Reviewed
at the meeting of the
University Academic Council
Protocol number _____
dated 30 08 2019

APPROVED BY
Chairman of the Board JSC
"S.Seifullin Kazakh Agro
Technical University


A.K. Kurishbayev
" 30 " 08 2019


EDUCATIONAL PROGRAM
"Veterinary welfare of animals"
(name of the program)

Area Code and Classification: 8D09 Veterinary Medicine
Code and classification of training areas: 8D091 - "Veterinary Medicine"
Code in the International Standard Classification of Education: 8D 0841
Qualification: Doctor of Philosophy (PhD) in the educational program "Veterinary welfare of animals"
Training term: 3 years, scientific and pedagogical
Form of study: full-time

Nur-Sultan, 2019

The author's team:

1. Abdrakhmanov Sarsenbai Kadyrovich – Doctor of Veterinary Sciences, Professor, Dean of the Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
2. Abdrakhmanov Talgat Zhunusovich – Doctor of Veterinary Sciences, Professor, Head of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
3. Maykanov Baltabay Sadepovich – Doctor of Biological Sciences, Professor of the Department of Veterinary Sanitation, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
4. Dzhakupov Isatay Tusupovich – Doctor of Veterinary Sciences, Professor of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
5. Terlikbayev Askar Aidarkhanovich – Candidate of Veterinary Sciences, Associate Professor of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
6. Inirbaev Asylkhan Kabievich – Candidate of Veterinary Sciences, Senior Lecturer, Acting Head of the Department of Veterinary Sanitation, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University

The team of authors was approved by the order of JSC "Saken Seifullin Kazakh Agro Technical Research University"
№ 932-H from 12.12.2018; № 962-H from 28.12.2018; № 964-H from 28.12.2018

Educational program " Veterinary safety "
considered at the meeting of the department "Veterinary Medicine"
protocol № 8/16 from «21» 04 2023,
approved by the Faculty Council
protocol № 9 from «04» 05 2023

Dean of the Faculty of Veterinary Medicine and Animal Husbandry
Technology
Doctor of Veterinary Sciences, Professor,



Abdrakhmanov S.K.

Head of the Department "Veterinary Medicine"
Candidate of Veterinary Sciences, Associate Professor



Mykhanbetkaliyev Y.Y.

Ministry of Agriculture of the Republic of Kazakhstan
NCJSC «S.Seifullin Kazakh AgroTechnical Research University»

Considered at the meeting of the
Academic
Council of the University
Protocol №
from « » 2023y.

APPROVE
Chairman of the Management Board
NCJSC «S.Seifullin Kazakh
AgroTechnical Research University»

« _____ » _____ 2023 y.

EDUCATIONAL PROGRAM
«Veterinary animal welfare»
(name of the program)

Code and classification of the field of education: 8D09 - Veterinary

Code and classification of training areas: 8D091 - Veterinary

Code in the International Standard Classification of Education: 8D 0841

Qualification: Doctor of Philosophy (PhD) in the educational program "Veterinary animal welfare"

Duration of training: 3 years, scientific and pedagogical

Form of study: full-time

Astana - 2023

Авторский коллектив:

1. Abdrakhmanov Sarsenbai Kadyrovich – Doctor of Veterinary Sciences, Professor, Dean of the Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
2. Abdrakhmanov Talgat Zhunusovich – Doctor of Veterinary Sciences, Professor, Head of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
3. Maykanov Balgabay Sadepovich – Doctor of Biological Sciences, Professor of the Department of Veterinary Sanitation, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
4. Dzhakupov Isatai Tusupovich – Doctor of Veterinary Sciences, Professor of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
5. Terlikbaev Askar Aydarkhanovich – Candidate of Veterinary Sciences, Associate Professor of the Department of Veterinary Medicine, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University
6. Inirbaev Asylkhan Kabievich – Candidate of Veterinary Sciences, Senior Lecturer, Acting Head of the Department of Veterinary Sanitation, Faculty of Veterinary Medicine and Animal Husbandry Technology, Saken Seifullin Kazakh Agro Technical Research University

The team of authors was approved by the order of JSC "Saken Seifullin Kazakh Agro Technical Research University"

№ 932-H from 12.12.2018; № 962-H from 28.12.2018; № 964-H from 28.12.2018

Educational program " Veterinary animal welfare "
considered at the meeting of the department "Veterinary Medicine"
protocol № 1 from «26» 08 2023,
approved by the Faculty Council
protocol №1A from «27» 08 2023.

Dean of the Faculty of Veterinary Medicine and Animal Husbandry
Technology , Professor

Akibekov O.S.

Head of the Department "Veterinary Medicine"
Candidate of Veterinary Sciences, Associate Professor

Mykhanbetkaliyev Y.Y.

Content

№	Name of the component	Page
1	Passport of the educational program	4
2.	General characteristics of the educational program	4
3.	Competency model (portrait) of a graduate	5
4.	Base of professional internships	6
5.	Structure of the educational program	7
6.	Appendix 1. Academic calendar	8
7.	Appendix 2. Working curriculum	10
8.	The relationship between the achievability of the formed learning outcomes according to the educational program and academic disciplines	13

1 Passport of the educational program (EP)

1.1 Goals and objectives of the modular educational program

The aim of the EP is to train highly specialized personnel to carry out managerial, research and pedagogical activities aimed at ensuring the welfare and protection of animal and human health, in the fields of veterinary medicine, agriculture and biology.

The content of the EP provides knowledge and practical skills in the implementation of conceptual studies to substantiate animal disease control activities in the conditions of the Customs Union and the World Trade Organization, as well as in accordance with the requirements and recommendations of international organizations (World Organization for Animal Health, Food and Agriculture Organization, UN World Health Organization).

The main tasks of the EP in the specialty 8D09 - "Veterinary" are:

- deepening theoretical and practical knowledge in the veterinary branches, due to the needs of the state and the agricultural market, the activities of scientific and educational institutions;
- training of specialists with a high level of professional culture and citizenship who are able to formulate and solve modern scientific and practical problems in the structures of veterinary medicine, education and business;
- formation of skills and skills among doctoral students that contribute to integration into the world scientific and educational community;
- provide an individual educational trajectory of training in accordance with the specialization chosen by the doctoral student.
- The OP is composed taking into account the current personnel needs of potential employees from the field of education and the agricultural sector, knowledge-intensive enterprises, specialized laboratories, as well as research institutions of agricultural and biological profiles.

1.2 Learning outcomes

LO 1. Use a systematic approach when conducting scientific research, analyze the results obtained and reflect them when writing academic texts, taking into account scientific knowledge.

LO 2. Demonstrate the concept of a legal and anti-corruption culture, integrate the importance of the principles and culture of academic integrity for the formation of a competent personality with high thinking potential.

LO 3. To interpret the role of the immune system in the emergence and spread of pathological processes in the body of animals, to explain the basics of immunology.

LO 4. To develop skills in working with pathogens of particularly dangerous animal diseases, conducting laboratory research in diagnostic and research work to ensure the safety and biological protection of people and animals.

LO 5. Demonstrate methods of molecular biotechnology of animal breeding, principles of embryoengineering, embryoculture, embryotransplantation.

LO 6. Use modern methods and methods of scientific research in veterinary medicine, analyze and interpret the results obtained.

LO 7. To distinguish between the indicators of the immune system in normal and immunopathological conditions, to represent the role of the immune system in maintaining the body's homeostasis and regulating the immunological response at the molecular and cellular level.

LO 8. To use methods of mathematical modeling of epidemiological situations in diseases, to predict and assess the risk of possible occurrence of infectious pathology.

LO 9. To identify the correlation between the etiology and pathogenesis of diseases with the subsequent establishment of effective methods of diagnosis and treatment.

LO 10. Apply innovative methods of diagnosis and treatment with subsequent analysis and interpretation of the results.

2 General characteristics of the educational program (relevance, features, competitive advantages, uniqueness, stakeholders, etc.)

The EP in the specialty 8D09 - "Veterinary" was developed by the National Qualification Framework and professional standards, agreed with the Dublin Descriptors and the European Qualification Framework, based on the State Compulsory Standard for Higher Education, approved by order of the Minister of Education and Science of October 31, 2018 (No. 604) and the standard curriculum of the specialty 8D09 - "Veterinary." The OP is designed based on a modular system for studying disciplines and contains 5 modules that form general cultural, special language, and professional competencies.

The number of loans is 180 credits, of which: theoretical training - is 53 credits, practical training (all types of practices) - is 115 credits, and final certification - is 12 credits.

The relevance of the EP corresponds to the main areas of international research in specific branches of veterinary sciences, they form the skills of doctoral students in conducting scientific work at the modern level and integration into the world scientific community.

The peculiarity of the EP is that it ensures the need of the labor market for scientific and practical personnel of the veterinary profile, which has special competencies in the field of epidemiology, modeling and molecular biological research of contagious diseases, biotechnology of reproduction of populations of farm animals, management of food safety of animal products in the context of globalization of the world economy.

The competitive advantages of the developed EP are that it is aimed at conducting comprehensive research by doctoral students and implementing interdisciplinary scientific projects that solve specific significant regional problems of Kazakhstan in the fields of agriculture, health care, and veterinary medicine.

The uniqueness of the program lies in the fact that the process of its implementation is carried out within the framework of international, republican, and grant research projects, as well as direct contracts with business entities, which allow doctoral students to use the material and technical platforms and resources of the university, other scientific institutions and enterprises to achieve innovative results that meet international standards.

The stakeholders of the EP are official veterinary services, laboratories of the regional, and republican significance of Kazakhstan, NPP "Atameken," agro-industrial enterprises, and leading research institutes of Kazakhstan of veterinary and biological profile.

3 Competence model (portrait) graduate

3.1 Areas of professional activity:

- carrying out research activities in scientific and design organizations of the veterinary, biological and agricultural direction;
- pedagogical activities in organizations of secondary, higher and additional professional agrarian, technological and biological education;
- participation in the management of the state, and interstate veterinary service, as well as the control and supervision of dangerous contagious and non-contagious animal diseases;
- organization of production and research business structures.

3.2 Types of professional activity

Ph.D. 8D09 - "Veterinary" can perform the following types of professional activities:

- production and management;
- organizational and technological;
- research;
- design;
- pedagogical.

Specific activities are determined by the content of the educational program.

3.3 General education competencies

EP Doctor of Philosophy (PhD) specialty 8D09 - "Veterinary"

- understanding of evolution, basic concepts of world and domestic achievements of veterinary, agricultural and biological sciences and practice;
- compliance with the principles of scientific ethics;
- knowledge of international and domestic veterinary legislative and regulatory documents; methodologies of scientific cognition.

3.4 Basic competencies

The following are defined as basic values:

- carrying out professional and comprehensive analysis of problems in the relevant area;
- ability of interpersonal communication and management of human resources, university training of specialists;
- have skills of patent search; protection of intellectual rights; analysis of scientific theories and ideas;
- have an oratory and experience in public speaking at scientific forums
- knowledge in the field of economic policy of the state, management of enterprises and economic entities of an agricultural profile.
- use of a foreign language for scientific communication and international cooperation.

3.5 Professional competencies

- organization of scientific and pedagogical activities in the context of globalization, rapid renewal and growth of information flows;
- management of theoretical, experimental and applied scientific research;
- knowledge of scientific methodology, modern software products for processing results;
- competent examination of scientific projects and research;
- knowledge of pedagogical methodologies of higher and secondary special education;
- ensuring constant professional growth.

4 Bases of passing professional practices

Doctor of Philosophy (PhD) of the specialty 8D09 - "Veterinary Medicine" can undergo professional practices in the following institutions:

- in institutions of the state veterinary service, in veterinary posts at the border and transport, in checkpoints;
- at enterprises for the manufacture and control of biological preparations and biologically active substances;
- in research institutes, in public and private veterinary organizations;
- enterprises, organizations leading training and retraining of veterinary specialists;
- research and design organizations in the field of veterinary medicine.

5 The structure of the educational program of the master's degree in the scientific and pedagogical direction

№	Description of cycles of disciplines and types of activities	Total labor intensity	
		in academic hours	in academic credits
1	2	3	4
1.	The educational component	1350	45
1.1	Basic Disciplines (BD) Cycle		
1)	University component		
	Biotechnological methods of animal reproduction	150	5
	Veterinary Immunology	150	5
	Particularly dangerous infectious animal diseases	150	5
	Research methods	150	5
	Academic writing	150	5
3)	Research practice	300	10
	Teaching practice	300	10
2	Research work	3690	123
1)	Postdoctoral research work, including completing an internship and completing a doctoral dissertation	3690	123
3	Additional types of training		
4	Final assessment	360	12
1)	Writing and defending a PhD thesis	360	12
	Total	5400	180

Approve
Chairman of the Academic Council
NJSC "Seifullin KATIUS "

Tireuov K.M.

« 29 » 05 2023 y.

ACADEMIC CALENDAR
for 2023-2024 academic year
by levels of training
(DOCTORAL)

1	Presentation week, registration for disciplines	1 course August 28 - 31
2	I semester	September 1 - December 15
3	<i>Constitution day</i>	<i>August 30</i>
4	Knowledge Day	September 1
5	<i>Republic Day</i>	<i>October 25</i>
6	<i>Independence Day</i>	<i>December 16</i>
7	Exam session	December 18 - 29
8	Passing FX	December 18 -29
9	<i>New Year's Holiday</i>	<i>January 1, 2</i>
10	Holidays	January 1-26
11	II semester	January 29 to May 10
12	<i>International Women's Day</i>	<i>March 8</i>
13	<i>Holiday Nauryz</i>	<i>March 21,22,23</i>
14	<i>Holiday of unity of the people of Kazakhstan</i>	<i>May 1</i>
15	<i>Defender of the Fatherland Day</i>	<i>May 7</i>
16	<i>Victory Day</i>	<i>May 9</i>
17	Exam session	from May 13 to May 24
18	Passing FX	May 13 - 31
19	Registration for the summer semester	May 27 - 31
20	Final examination	until June 30
21	Summer semester	from June 3 to July 12
22	Holidays	from May 27 to August 31
23	<i>Capital Day</i>	<i>July 6</i>
	Practice*	

Approved by the Academic Council of NJSC «S. Seifullin KATIUS»,
protocol № 16, 29.05. 2023 y.

Note: If it coincides with a weekend or a holiday, the lesson begins on the next working day.

* Types and terms of professional practice are determined by the working Curriculum of Educational Programs.

The Ministry of Agriculture of the Republic of Kazakhstan
 NC JSC "S. Seifullin Kazakh Agrotechnical Research University"

Approved at the meeting
 of Academic Council

Protocol № ____ 20__ y.

APPROVED
 Member of the Board

Vice-Rector for Academic Affairs
 NC JSC "KATIU"

Absebeva R.D.

___ " ___ 20__ y.

WORKING CURRICULUM

for 2023-2026 academic year

For the modular education program "Veterinary welfare of animals"

by the specialty/group of educational programmes D138 – Veterinary science

Degree: Doctoral studies by specialization (scientific & pedagogical direction)

Form of education: Full-time (PhD 3 years) semester

Entry year 01-09-2023

Module code	Module name	Discipline cycle	Discipline	Code of subject	Subject name	Control in the academic period					Volume of hours including				Distribution of credits per academic period										
						Exams	Differentiated test/practical	Differentiated test/courses (paper)	Practices/RW	Term paper/ project	Total	Lecture	Practice	Lab practice	Self-study work of PhD student	1 course	2 course	3 course							
1	teaching practice	BS U	U	PP 7213	Pedagogical training				300			0	0	0	0		10.0								
2	Research practice	AS U	U	P 8301	Research practice				300			0	0	0	0			10.0							
3	infectious diseases	BS C	C	PP 7213	Biological safety in especially dangerous animal diseases	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
4	Animal	BS C	C	PP 7213	Modeling of epidemiological processes in infectious diseases of animals	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
5	Animal	BS C	C	IMBZh 7211	Innovative methods of animal reproduction biotechnology	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
6	Biotechnology	BS E	E	OPDLNBZh	The main problems of diagnosis and treatment of non-infectious animal diseases	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
7	immunology	BS U	U	VI7207	Veterinary immunology	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
8	Research methods	BS U	U	MNI7209	Methods of scientific researches	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
9	Research methods	BS U	U	AP 7210	Academic writing	1					150.0	45.0	15.0	30.0	0	20	85	5.0							
Scientifically research																									
10		GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				150		150.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11		GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				600		600.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12		GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				600		600.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	research practice	GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				900		900.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14		GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				900		900.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15		GE C	C	NIRDVVDD	PhD student's research work, incl. doctoral thesis				540		540.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total of theoretical course						168	5	0	0	4290	0	5040	225	75	150	0	100	425	30.0	30.0	30.0	30.0	30.0	18.0	18.0
AC	Additional courses						12												360.0						
FA	Final attestation						12			7								360							
Total						180			4297		5400	225	75	150	0	100	425	30.0	30.0	30.0	30.0	30.0	18.0	18.0	

Examinations (semester) - The final form of control on Physical Culture and types of professional practice is a differentiated credit.

The modular curriculum is made in accordance with the standard curriculum of the specialty (approved by the Order of the MES RK from 16.08.2013 № 343).
 State obligatory standards of education (approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan from 23.08.2012 № 1080), modular educational programme of the specialty.

The modular curriculum was considered and approved at the meeting of the methodical commission of the faculty, Protocol № ____ 20__ y.

Director of Department of Academic Affairs

Deputy Director of the Department of Academic Affairs

Dean of the faculty

Head of the Department

Жүрген Жалғабай Сарсебеуов

Алболюс Орсен Султаналимович

Мухамбеталиев Еркін Ергалиевич

Considered at the meeting of Academic Council of
 the University
 Protocol № _____ 20__ y.

APPROVED
 Member of the Board Vice-Rector for Academic
 NC JSC "KATTU"
 Abisheva R.D.
 " " " 20__ y.

WORKING CURRICULUM
 for 2023-2026 academic year
 For the modular education program "Veterinary welfare of animals"
 by the speciality/group of educational programmes D138 – Veterinary science
 Degree: Doctoral studies by specialization (scientific & pedagogical direction)
 Form of education: Full-time (PhD 3 years) semester
 Entry year: 04-01-2023

Module code	Module name	Discipline cycle	Discipline component	Code of subject	Subject name	Control in the academic period				Volume of hours				Distribution of credits per academic period													
						Exams	Differentiated test(course)	Practice/SRW	Term paper/project	Total	In-class learning	including		Self-study work of PhD student with teacher (office)	Self-study work of PhD student	1 course			2 course			3 course					
												Lab practicals	Practice			Lectures	1	2	3	4	5	6	15	15	15	15	15
1	teaching practice	BS	CS	PP 7201	Pedagogical training	10		300		300.0	0	0	0	0	0	0	0	0	0	10.0							
2	Research practice	AS	UC	IP 8302	Research practice	10		300		300.0	0	0	0	0	0	0	0	0	0	10.0							
3	infectious diseases	BS	ES	BBPOOBZh 7207	Biological safety in especially dangerous animal diseases	5	1			150.0	45.0	15	30	0	20	85	5.0										
4		BS	ES	MEPPZZZh 7207	Modeling of epidemiological processes in infectious diseases of animals	5	1			150.0	45.0	15	30	0	20	85	5.0										
5	Animal Biotechnology	BS	ES	IMBVZh 7206	Innovative methods of animal reproduction biotechnology	5	1			150.0	45.0	15	30	0	20	85	5.0										
6		BS	ES	OPDLNBZh 7206	The main problems of diagnosis and treatment of non-infectious animal diseases	5	1			150.0	45.0	15	30	0	20	85	5.0										
7	immunology	BS	UC	VI 7203	Veterinary Immunology	5	1			150.0	45.0	15	30	0	20	85	5.0										
8	Research methods	BS	UC	MNI 7204	Methods of scientific researches	5	1			150.0	45.0	15	30	0	20	85	5.0										

9	BS	UC	AP 7205	Academic writing	5	1			150.0	45.0	15	30	0	20	85	5.0			
Scientifically research																			
10	RW	CS	NIRDVVDD 7516	PhD student's research work, incl. doctoral thesis	5		150	150.0			0	0	0	0	0	5.0			
11	RW	CS	NIRDVVDD 7501	PhD student's research work, incl. doctoral thesis	10		300	300.0			0	0	0	0	0	10.0			
12	RW	CS	NIRDVVDD 7515	PhD student's research work, incl. doctoral thesis	10		300	300.0			0	0	0	0	0	10.0			
13	RW	CS	NIRDVVDD 8517	PhD student's research work, incl. doctoral thesis	20		600	600.0			0	0	0	0	0		20.0		
14	RW	CS	NIRDVVDD 8518	PhD student's research work, incl. doctoral thesis	30		900	900.0			0	0	0	0	0			30.0	
15	RW	CS	NIRDVVDD 9519	PhD student's research work, incl. doctoral thesis	30		900	900.0			0	0	0	0	0			30.0	
16	RW	CS	NIRDVVDD 9520	PhD student's research work, incl. doctoral thesis	18		540	540.0			0	0	0	0	0			18.0	
Total of theoretical course					168	5	0	4290	0	225	75	150	0	100	425	60.0	0.0	30.0	18.0
AC	Additional courses																		
FA	Final attestation																		
					12			360.0											
					12		6	360											
					180		4296	5400	225	75	150	0	100	425					

Examinations (semester)* - The final form of control on Physical Culture and types of professional practice is a differentiated credit.

The modular curriculum is made in accordance with the standard curriculum of the speciality (approved by the Order of the MES RK from 16.08.2013 № 343).

State obligatory standards of education (approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan from 23.08.2012 № 1080), modular educational programme of the speciality.

The modular curriculum was considered and approved at the meeting of the methodical commission of the faculty, Protocol № 20__

Director of Department of Academic Affairs

Жургенов Жакенбай Сарсенбаевич

Deputy Director of the Department of Academic Affairs

Dean of the faculty

Акибеков Оркен Султанхамитович

Head of the Department

Муханбеталиев Ерсын Ергазыевич

WORKING CURRICULUM

for 2022-2025 academic year

For the modular education program "Veterinary welfare of animals"
 by the speciality/group of educational programmes D138 – Veterinary science
 Degree: Doctoral studies by specialization (scientific & pedagogical direction)
 Form of education: Full-time (PhD 3 years) semester
 Entry year: 01-09-2022

Module code	Module name	Discipline cycle	Discipline component	Code of subject	Subject name	Academic credits	Control in the academic period				Volume of hours				Distribution of credits per academic period										
							Exams	Differentiated test (practice)	Differentiated test (course paper)	Practice/SRW	Term paper/project	Total	In-class learning	including		Self-study work of PhD student with teacher (office)	Self-study work of PhD student	1 course		2 course		3 course			
														Lectures	Practice			1	2	3	4	5	6		
Modules of specialty/education program																									
1	teaching practice	BS	CS	PP 7201	Pedagogical training	10			300			0	0	0	0	0	0	10.0							
2	Research practice	AS	U C	IP 8301	Research practice	10			300			0	0	0	0	0	0	10.0							
3	infectious diseases	BS	U C	OOIBZh 7206	highly infectious disease of animals	5	1		150			45.0	15	30	0	20	85	5.0							
4	Animal Biotechnology	BS	U C	BMRZh 7204	Biotechnological methods of breeding animals	5	1		150			45.0	15	30	0	20	85	5.0							
5	immunology	BS	U C	VI 7207	Veterinary Immunology	5	2		150			45.0	15	30	0	20	85	5.0							
6	Research methods	BS	U C	AP 7210	Academic writing	5	1		150			45.0	15	30	0	20	85	5.0							
7		BS	U C	MNI 7209	Methods of scientific researches	5	2		150			45.0	15	30	0	20	85	5.0							
Scientifically research																									
8	research practice	GE R	CS	NIRDVVD D 7101	PhD student's research work, incl. doctoral thesis	5			150				0	0	0	0	0	5.0							
9		GE R	CS	NIRDVVD D 7109	PhD student's research work, incl. doctoral thesis	10			300				0	0	0	0	0	10.0							
10		GE R	CS	NIRDVVD D 7110	PhD student's research work, incl. doctoral thesis	10			300				0	0	0	0	0	10.0							
11		GE R	CS	NIRDVVD D 8111	PhD student's research work, incl. doctoral thesis	20			600				0	0	0	0	0	20.0							

12	GE R	CS	NIRDVVD D 8112	PhD student's research work, incl. doctoral thesis	30						900.0										30.0		
13	GE R	CS	NIRDVVD D 9113	PhD student's research work, incl. doctoral thesis	30						900.0										30.0		
14	GE R	CS	NIRDVVD D 9114	PhD student's research work, incl. doctoral thesis	18						540.0											18.0	
Total of theoretical course					168	5	0	0			5040									30.0	30.0		18.0
AC Additional courses											0												
FA Final attestation					12						360.0												
Total					12						360												
					180						5400	225	75	150	0	100	0				425		

Examinations (semester)* - The final form of control on Physical Culture and types of professional practice is a differentiated credit.

The modular curriculum is made in accordance with the standard curriculum of the speciality (approved by the Order of the MES RK from 16.08.2013 № 343).
State obligatory standards of education (approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan from 23.08.2012 № 1080).
The modular curriculum was considered and approved at the meeting of the methodical commission of the faculty, Protocol № 20

Director of Department of Academic Affairs

Жургенов Жакенбай Сарсенбаевич

Deputy Director of the Department of Academic Affairs

Dean of the faculty

Акибеков Оркен Султанхамитович

Head of the Department

Муханбеткалнев Ерсун Ергазыевич

Considered at the meeting of Academic Council of the University Protocol

№ _____ 20__ y.

The Ministry of Agriculture of the Republic of Kazakhstan
NC JSC "S.Seifullin Kazakh Agrotechnical Research University"

APPROVED
Member of the Board
Vice-Rector for Academic
NC JSC "KATTU"
Abisheva R.D.
" _____ 20__ y.

WORKING CURRICULUM

for 2021-2024 academic year

For the modular education program "Veterinary welfare of animals"
by the speciality/group of educational programmes D138 – Veterinary science
Degree: Doctoral studies by specialization (scientific & pedagogical direction)

Form of education: Full-time (PhD 3 years) semester
Entry year: 01-09-2021

Module code	Module name	Discipline cycle	Discipline component	Code of subject	Subject name	Academic credits	Control in the academic period					Volume of hours					Distribution of credits per academic period															
							Exams	Differentiated test (practice)	Differentiated test (course paper)	Practice/SRW	Term paper/project	Total	In-class learning	including		Self-study work of PhD student with teacher (office)	Self-study work of PhD student	1 course			2 course			3 course								
														Lectures	Lab practicals			15	15	15	15	15	15	15	15	15	15	15				
Modules of specialty/education program																																
1	teaching practice	BS	CS	PP 7201	Pedagogical training	10						300.0					0	0	0	0	0	0	10.0									
2	Research practice	BS	CS	IP 8202	Research practice	5						150.0					0	0	0	0	0	0	5.0									
3		BS	CS	IP 8203	Research practice	5						150.0					0	0	0	0	0	0										
4	infectious diseases	BS	U C	OOIBZh 7206	highly infectious disease of animals	5	1					150.0	45.0	15	30	0	0	0	20	85	85	0	5.0									
5	Animal Biotechnology	BS	U C	BMRZh 7204	Biotechnological methods of breeding animals	5	1					150.0	45.0	15	30	0	0	0	20	85	85	0	5.0									
6	immunology	BS	U C	VI 7207	Veterinary Immunology	5	2					150.0	45.0	15	30	0	0	0	20	85	85	0	5.0									
7	Research methods	BS	U C	AP 7210	Academic writing	5	1					150.0	45.0	15	30	0	0	0	20	85	85	0	5.0									
8		BS	U C	MNI 7209	Methods of scientific researches	5	2					150.0	45.0	15	30	0	0	0	20	85	85	0	5.0									
Scientifically research																																
9	research practice	GE R	CS	NIRDVVD D 7101	PhD student's research work, incl. doctoral thesis	5						150.0					0	0	0	0	0	0	5.0									
10		GE R	CS	NIRDVVD D 7109	PhD student's research work, incl. doctoral thesis	10						300.0					0	0	0	0	0	0	10.0									
11		GE R	CS	NIRDVVD D 7110	PhD student's research work, incl. doctoral thesis	10						300.0					0	0	0	0	0	0	10.0									

12	GE R	CS	NIRDVVD D 8111	PhD student's research work, incl. doctoral thesis	15	450	450.0	0	0	0	0	0	0	0	15.0						
13	GE R	CS	NIRDVVD D 8112	PhD student's research work, incl. doctoral thesis	20	600	600.0	0	0	0	0	0	0	0	20.0						
14	GE R	CS	NIRDVVD D 8113	PhD student's research work, incl. doctoral thesis	15	450	450.0	0	0	0	0	0	0	0	15.0						
15	GE R	CS	NIRDVVD D 9114	PhD student's research work, incl. doctoral thesis	30	900	900.0	0	0	0	0	0	0	0		30.0					
16	GE R	CS	NIRDVVD D 9115	PhD student's research work, incl. doctoral thesis	18	540	540.0	0	0	0	0	0	0	0		18.0					
Total of theoretical course					168	5	0	4290	0	4290	0	0	150	75	225	30.0	40.0	30.0	20.0	30.0	18.0
AC	Additional courses						0														
FA	Final attestation				12		360.0														
Total					180		360														
Total							5400	225	75	150	0	100	425								

Examinations (semester)* - The final form of control on Physical Culture and types of professional practice is a differentiated credit.

The modular curriculum is made in accordance with the standard curriculum of the speciality (approved by the Order of the MES RK from 16.08.2013 № 343).

State obligatory standards of education (approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan from 23.08.2012 № 1080), modular educational programme of the speciality.

The modular curriculum was considered and approved at the meeting of the methodical commission of the faculty, Protocol № 20__

Director of Department of Academic
Affairs

Deputy Director of the Department of Academic Affairs

Dean of the faculty

Head of the Department

Жургенов Жақенбай Сәрсенбаевыч

Ақибеков Оркен Султанхамитовыч

Муханбетқалиев Ерсін Ергазымыч

Matrix of achievability of the generated learning outcomes in the educational program using academic disciplines

№	Name of the discipline	Brief description of the discipline (30-50 words)	Number of credits	Generated learning outcomes (codes)										
				PO1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	
The cycle of general education disciplines The university component														
1	Academic Writing	Studies the techniques of writing academic texts, abstracting, compiling and processing research results, developing a presentation of his own project, the basics of bibliography: references, descriptions and editing of academic text	5	V	V						V			
2	Innovative methods of animal reproduction biotechnology	Examines methods of molecular biotechnology of animal breeding; principles of embryoengineering, embryoculture, embryotransplantation, forms skills for creating a cryobank of gametes and embryos, describes a vital method for studying reproductive cells of animals.	5	V				V			V			V
3	Veterinary immunology	Examines the functioning of the immune system in normal and immunopathological conditions; the role of the immune system in maintaining the body's homeostasis, the development of the mechanism of immunological recognition of antigens and the regulation of the immunological response at the molecular and cellular level.	5			V					V			
4	Methods of scientific research	Forms the skills of setting a scientific problem based on the description of contradictions between the available knowledge about the object of research and the knowledge necessary for the practical solution of the problem. Studies the principles of developing a scientific research plan and methods of theoretical, experimental research and registration of scientific results.	5	V							V			
5	Biological safety in especially dangerous animal diseases	Examines the epizootic situation of particularly dangerous infectious diseases in the world and the Republic of Kazakhstan. Describes biological safety measures for particularly dangerous animal diseases.	5			V					V			
6	Modeling of epidemiological processes in infectious animal	ies methods of mathematical modeling of epidemiological processes in diseases of non-infectious etiology, explains the basic principles of forecasting and assessing the risk of possible spread of infectious pathology in											V	V

	diseases	certain territories.																			
7	The main problems of diagnosis and treatment of non-communicable animal diseases.	Describes the main etiopathogenetic links in the development of diseases using modern methods of diagnosis and treatment of animal diseases with non-infectious etiology.																			

Head of the Department of «Veterinary Medicine»

Mukhanbetkaliyev Y.Y.

Employer

Tyulegenov S.B.

Chairman of the Faculty Council for Academic Quality

Shaikenova K.H.

Dean of the Faculty of Veterinary Medicine and Animal Husbandry Technology

Akibekov O.S.