

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

Reviewed by the meeting of the University
Academic Council
Minutes № 15
«30» 05 2019.

Chairman of the Board of
S.Seifullin Kazakh Agrotechnical
University
A.K.Kurishbayev
«30» 05 2019.



EDUCATIONAL PROGRAM
«Rational use of natural bioresources»

Code and classification of education field: 7M08 Agriculture and bioresources

Code and classification of training direction: 7M083 Forestry

Code in the International Standard Classification of Education: 0821

Qualification: Master of Agriculture in the educational program "Intensification of hunting farms»

Studying period: 2 year.

Nur-Sultan 2019

Update EPVO – 27.07.2023

Academic Committee:

Chairman – Sarsekova Dani Nurgisaevna Doctor of Agricultural Sciences,
Associate Professor

Members of the Committee:

1. Toktasynov Zhailau Nurmukhanbetovich – Candidate of Agricultural Sciences, Associate Professor
2. Mazarzhanova Kuralai Mukazhanovna – Candidate of Agricultural Sciences, Acting Associate Professor
3. Abzhanov Talgat Sagidollaevich – PhD, senior lecturer
4. Kopabayeva Arailym Aitbayevna – PhD, senior lecturer
5. Akimzhanov Darkhan Shoganbekovich - PhD, senior lecturer
6. Burshakbayeva Laura Muratovna – PhD, senior lecturer
7. Tokmurzin Erik Taizhanovich - Candidate of Agricultural Sciences, Deputy Director of “Astana Santehservice S” LLP

The Academic Committee was approved by Order No. 516-N of 04.10.2022 for the S.Seifullin Kazakh Agro Technical Research University.

The educational program "Aquaculture and aquatic bioresources" was reviewed at the meeting of the Department of Hunting and Fisheries Protocol № _____ of "_____" _____ 2023 .

approved by the Council of the Faculty of Forestry, Wildlife and Environment Protocol № _____ " ____ " _____ 2023.

Content

№	Component Name	Page
1.	Passport of the educational program	4
2.	General characteristics of the educational program	5
3.	Competency model (portrait) of the graduate	6
4.	Base of professional practice	7
5.	Structure of the educational program	8
6.	Appendix 1. Academic calendar	10
7.	Appendix 2. Working curriculum	11
8.	Appendix 3. Matrix of achievability of the formed learning outcomes according to the educational program with the help of academic disciplines	12

1 Passport of the educational program

1.1 Purpose of the educational program – Training of highly qualified personnel in research, production and technological, organizational and managerial, project and pedagogical activities, as well as in-demand specialists in the field of rational use of natural bioresources.

Tasks:

- have an idea of the modern management of hunting farms in the Republic of Kazakhstan and their development;
- know the normative legal acts in the field of hunting and environmental legislation; the economics of profitable hunting management;
- be able to apply in practice scientifically-based management methods for the introduction of hunting production;
- to solve the management tasks of the hunting economy;
- have the skills of the role of a top manager of hunting production, marketing of hunting products, the use of scientific, laboratory and field equipment and technical means in the study of hunting animals;
- to be competent in the organization and management of hunting production, preparation of hunting management projects, state control in the field of protection, reproduction and use of wildlife.

1.2 Learning outcomes

ON 1 – Demonstrate knowledge about current trends in the development of scientific knowledge, about current methodological and philosophical problems of science. To analyze the psychological conditions and features of management activities in order to improve the efficiency and quality of work in the management system. Apply the content of modern concepts of science. Analyze the status and main problems of the history and philosophy of science.

ON 2 – Apply methods of searching for scientific and professional information in a foreign language using network technologies. To improve both written and oral communication on professional and scientific topics, to produce independent foreign-language texts on professional academic topics. To use at a professional level knowledge about the origin of ornamental animal breeds, feeding methods, breeding work.

ON 3 – To apply in practice methods of accounting for hunting species, methods of animal extraction, rational use of hunting resources, ways to increase the number of animals, as well as methods of their reproduction, maintenance and breeding of wild animals and birds with artificial content.

ON 4 – To form scientific theoretical and practical skills necessary for work in hunting farms and other branches of nature management. To substantiate the scientific potential of nature reserves, national natural parks, reserves and other specially protected natural areas, ecological foundations of nature management, natural resources. Conduct monitoring and accounting of hunting resources and lands.

ON 5 - To develop knowledge about biology and conservation measures for birds and animals, basic methods of conducting experiments in the field of hunting

and animal husbandry. Apply training skills in the basics of legislation in hunting farms, the main representatives of commercial, modern accounting methods, carrying out measures to manage and restore the population of hunting animals.

ON 6 – To implement the technology of collecting, primary processing of hunting products, methods of storage and transportation of hunting raw materials, methods of analyzing the quality of raw materials and finished hunting products; the main methods of extraction of animals and birds used in the Republic of Kazakhstan. Demonstrate knowledge about the main representatives of commercial and non-commercial, biology, accounting for the number of animals and birds.

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

The educational program "Intensification of hunting farms" was created in accordance with the Law of the Republic of Kazakhstan dated July 9, 2004 "On the protection, reproduction and use of wildlife", taking into account the request of employers. This educational program solves the main problems of biodiversity conservation and rational use of the hunting fund, will allow the future specialist to form core competencies.

The relevance of the educational program lies in the fact that it reflects the issues of environmental protection in the field of wildlife protection and hunting management taking into account modern realities, the use of a scientific approach in regulating the number of animals, issues of acclimatization.

The peculiarity of this educational program is that it takes into account the world experience of hunting and organization of hunting economy (Western Hungarian University, Warsaw University of Natural Sciences, Vyatka Agricultural Academy, Irkutsk Agricultural Academy named after A.A. Yezhevsky), as well as taking into account the work and proposals of UNDP, ASBC, etc.

The competitive advantage of the educational program lies in the fact that, based on the experience of various countries, this OP is aimed at solving issues of protection, rational use of the animal world of the Republic of Kazakhstan, taking into account the peculiarities and uniqueness of the hunting fauna.

The uniqueness of the educational program lies in the fact that it reflects significant tasks in the field of development of hunting farms and wildlife protection in the Republic of Kazakhstan, and in particular the issues of wild breeding, intensification of hunting farms and development of national types of hunting, as well as the OP is synchronized with the OP of leading foreign universities in Hungary, the Czech Republic, Poland, Russia. For the implementation of the educational program, there is an appropriate material and technical base (educational and production hunting and fishing farm "Dudarai", UAZ cars, motorized vehicles, monitoring devices for living objects, watercraft, fishing gear, etc.), as well as practice bases provided by employers such as the Forestry and Wildlife Committee of the Ministry of Agriculture of the Republic of Kazakhstan, regional territorial inspections of the Ministry of Agriculture of the Republic of Kazakhstan, the public association of hunters and hunting subjects "Kansonar", "Okhotzooptom", the State

National Nature Park (SNNP)"Burabai", The State Nature Reserve (SNR) "Korgalzhyn" and other subjects in the field of hunting and animal husbandry.

3 Competence model (portrait) of the graduate

3.1 Spheres of professional activity The scope of professional activity of the Master of Hunting is hunting farms of various forms of ownership; state nature reserves, zoological reserves, national nature parks and other specially protected natural territories; state institutions for the protection of forests and wildlife; republican and regional state bodies of wildlife and hunting management; tourist organizations and public associations of hunters and fishermen.

3.2 Types of professional activity: breeding, maintenance and use of various types of commercial hunting animals and birds in hunting farms; harvesting, primary processing, processing and marketing of wild breeding and hunting products; organization and implementation of hunting equipment and creation of conditions for amateur sports, commercial hunting, development of measures for semi-voluntary maintenance and cultivation of hunting game; carrying out biotechnical measures to increase the number of animals and birds; breeding works, veterinary and sanitary measures, feeding and keeping of animals and birds; to carry out measures for the protection and control of the rational use of natural biological resources; to conduct research and development, to carry out design and survey work, scientific and organizational activities in various areas of the hunting economy; to carry out organizational and technological activities at all production enterprises of the hunting economy, to carry out management activities, performing management and marketing tasks.

3.3 General education competences

- collection, analysis and interpretation of information (instrumental competence);
- development of ideas and critical argumentation (interpersonal competence);
- self-motivation and self-management (system competence);
- regulatory legal acts in the field of hunting and environmental legislation;
- to lead the economy of profitable hunting management;
- the ability to improve and develop their intellectual and general cultural level;
- possession of a culture of thinking, the ability to generalize, analyze, perceive information, set goals and choose ways to achieve it;
- ability to control and, where possible, prevent tension and stress associated with performance activities (interpersonal competencies);
- the ability to logically correctly, argumentatively and clearly build oral and written speech.

3.4 Basic competences:

- organize and conduct production, research and teaching activities;
- be able to: apply in practice scientifically based methods of management of hunting production; solve management tasks of hunting;

- be able to correctly evaluate the results of scientific and practical activities; conduct practical and laboratory classes with students;
- preparation of feasibility studies and development of plans and programs of innovative projects;
- perform design and survey work using modern equipment and information technologies;
- use a foreign language fluently as a means of business communication;

3.5 Professional competence

- the ability to use regulatory legal documents regulating the organization and methodology of scientific research in the hunting industry.
- issues of organization and management of hunting production, preparation of hunting management projects, state control in the field of protection, reproduction and use of wildlife.
- scientific bases of hunting production; programs of basic disciplines of hunting profile; basic methods of scientific research on biology and ecology of hunting animals;
- have the skills of the role of a top manager of hunting production, marketing of hunting products, the use of scientific, laboratory and field equipment and technical means in the study of hunting animals;
- have skills: teaching hunting disciplines, be competent in scientific problems of hunting, training young specialists.

4 Base the apprenticeship (specify all kinds of practices)

Undergraduates according to the curriculum undergo pedagogical, research practice.

Pedagogical practice takes place on the basis of the Department of Hunting and Fisheries together with the Department of Vocational Training.

The bases of research practice are hunting farms RSE "Committee of forestry and wildlife Ministry of agriculture of the Republic of Kazakhstan", LLP "Garkul-2002", KKH "IKE" OH "Zaisan", RSE "Almaty regional territorial Inspectorate of forestry and fauna" RSU "Irgiz-Turgai state nature reserve" RSU "Sairam-Ugam state national natural Park" RSU "Karkaraly state national natural Park" RSU "Ustyurt state natural reserve», RSU "Zhongar-Alatau national natural Park", RSU "Katon-Karagay sspp", KGO "Management of natural resources and environmental management of Zhambyl region", RSU "Kyzylorda regional territorial inspection of forestry of fauna", ROO "Tazy Tobet Boribasar", NGO "Society of hunters and fishermen of the city Nur-Sultan and Akmola region", state enterprise "Production and economic enterprise "Zhas-Nur" of akimat of Nur-Sultan", CRF RSE "ON Okhotzooptom", Representation of the Republican Association of public associations of hunters and subjects of hunting economy "Kansonar" in the Karaganda region, East Kazakhstan regional public Association of hunters and fishermen.

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

№	Name of cycles and disciplines	Total complexity	
		in academic hours	in academic credits
1	2	3	4
1.	Theoretical training	2640	88
1.1	Cycle of basic disciplines (BD)	1050	35
1)	University Component (UC):	600	20
	including:		
	History and philosophy of science	150	5
	Foreign language (professional)	150	5
	Higher school pedagogy	90	3
	Management Psychology	150	5
	Pedagogical practice	60	2
2)	<i>Component of choice</i>	450	15
	English for academic purposes / Breeding of ornamental animals	150	5
	Assessment of hunting resources / Methods of reproduction of commercial and rare endangered species of animals	150	5
	Ecological tourism in hunting grounds /Ecology and rational nature management	150	5
1.2	Cycle of profile disciplines (PD)	1590	53
1)	University component (VC)		
	The fund of hunting grounds and their accounting	150	5
	Problems of rational use of animals	180	6
	Theory and experimental methods in the field of hunting and animal husbandry	150	5
	Management and restoration of the hunting animal population	180	6
	Commodity science and technology of primary processing of hunting products	150	5
	Monitoring and extraction of commercial animals and birds in the Republic of Kazakhstan	180	6
	Research practice	600	20

2)	Elective Component (EC)		
2	Research work	720	24
1)	Research work of a master's student, including internship and completion of a master's thesis (RWMS)	720	24
3	Additional types of training (ATT)		
4	Final certification (FC)	240	8
1)	Registration and defense of a master's thesis (RaDMT)	240	8
	Total	3600	120

Appendix 2. Working curriculum

WORKING CURRICULUM for 2023-2025 academic year For the modular education program "Rational use of Natural Bioresources" by the speciality/group of educational programmes: MI33 – Forestry Degree: Master's program by specialization (Scientific & pedagogical direction) Form of education: Full-time (MS 2 years) semester Entry year: 01-09-2023																										
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 Ms student with teacher (office)	Self-study work of Ms student	Number of weeks in the academic period							
														Lectures	Practice	Lab practicals			1 course				2 course			
																			15	15	15	15	15	15	15	15
General modules																										
1	Socially – pedagogical	BS	UC	PVSH 5205	Pedagogics of higher school	3	1					90.0	30.0	15	15	0	15	45	3.0							
2		BS	UC	PU 5207	Psychology of management	5	1					150.0	45.0	15	30	0	30	75	5.0							
3		BS	UC	IFN 5204	History and philosophy of science	5	2					150.0	45.0	15	30	0	30	75		5.0						
4		BS	UC	PP 5206	Pedagogical training	2				60		60.0		0	0	0	0	0		2.0						
5	Foreign languages	BS	UC	IYAP 5203	Foreign language (professional)	5	1					150.0	45.0	0	45	0	30	75	5.0							
6		BS	ES	AYDAC 5202	English for Academic Purposes	5	2					150.0	45.0	15	30	0	30	75		5.0						
7		BS	ES	RDZh 5202	Breeding of ornamental animals	5	2					150.0	45.0	15	30	0	30	75		5.0						
Modules of specialty/education program																										
8	Evaluation of biological resources	AS	UC	FOUIU 6302	Fund of hunting areas and their account	5	3					150.0	45.0	15	30	0	30	75		5.0						
9		BS	ES	OOR 5201	Assessment of Hunting Resources	5	1					150.0	45.0	15	30	0	30	75	5.0							
10	Production of animals and birds	BS	ES	MVPRIVZh 5201	Methods vosproyvodstva commercial and rare endangered species	5	1					150.0	45.0	15	30	0	30	75	5.0							
11		AS	UC	MDPZhPR 5306	Monitoring and production of game animals and birds in the Republic of Kazakhstan	6	1					180.0	60.0	30	30	0	30	90	6.0							
12		AS	UC	TTPOOP 6307	Merchandising and technology of primary processing of hunting products	5	3					150.0	45.0	15	30	0	30	75		5.0						
13		AS	UC	TMEDOZ 5301	Theory and methods of the experiment in the field of game management and farming	5	1					150.0	45.0	15	30	0	30	75	5.0							
14	Management and recovery of the animal population	AS	UC	PRIZh 5309	Problems of rational use of animals	6	2					180.0	60.0	30	30	0	30	90		6.0						
15		AS	UC	IP 5304	Research practice	5				150		150.0		0	0	0	0	0		5.0						
16		AS	UC	UVPOZh 6303	Management and restoration of populations of game animals	6	3					180.0	60.0	30	30	0	30	90		6.0						
17		AS	UC	IP 6308	Research practice	10				300		300.0		0	0	0	0	0		10.0						
18		BS	ES	ETOU 5208	Ecological tourism in hunting grounds	5	2					150.0	45.0	15	30	0	30	75		5.0						
19		BS	ES	EP 5208	Ecology and rational prirodopolzvanie	5	2					150.0	45.0	15	30	0	30	75		5.0						
20	AS	UC	IP 6305	Research practice	5				150		150.0		0	0	0	0	0		5.0							
Scientifically research																										
21	The research work of a master student	RW	CS	NIRMVVMD 5501	Master student's research work, including implementation of master's thesis	1						30	30.0		0	0	0	0	1.0							
22		RW	CS	NIRMVVMD 5502	Master student's research work, including implementation of master's thesis	2						60	60.0		0	0	0	0	2.0							
23		RW	CS	NIRMVVMD 6503	Master student's research work, including implementation of master's thesis	9						270	270.0		0	0	0	0	9.0							
24		RW	CS	NIRMVVMD 6504	Master student's research work, including implementation of master's thesis	12						360	360.0		0	0	0	0		12.0						
Total of theoretical course						112	13	0	0	1380	0	3360	615	225	390	0	375	990	30.0	30.0	30.0	22.0				
AC	Additional courses																									
FA	Final attestation					8																				
						8																				
										4																
	Total					120				1384		3600	615	225	390	0	375	990								

Appendix 3. Matrix of achievability of the formed learning outcomes according to the educational program with the help of academic disciplines

№	Name of discipline	Brief description of the discipline (30-50 words)	Number of credits	Generated learning outcomes (codes)					
				ON1	ON2	ON3	ON4	ON5	ON6
Cycle of basic disciplines University component									
1	Pedagogics of higher school	It allows undergraduates studying in the scientific and pedagogical direction to understand common problems, methodological and theoretical foundations of Higher School pedagogy, skills of analysis of teaching and upbringing, elements of modern planning and organization technologies.	3	V					
2	Psychology of management	Forming the skills of managing organized activities of people through the study of psychological laws and patterns of management and quality of work, developing the ability to make decisions scientifically, planning the activities of other people, and managing into an organization	5	V					
3	History and philosophy of science	Forms the skills of the methodological and dialectical approach to the research, summarizes philosophical knowledge, studies the issues of historical development, its structure, analyzes the patterns and trends of scientific knowledge, systematizes the effectiveness of research work.	5	V					
4	Foreign language (professional).	Forms foreign language communicative competence as a significant component of professional competence and the culture of scientific writing among students, which allows them to integrate into international scientific activities, allows them to freely operate the scientific and conceptual apparatus in their specialty, expand the scientific and information base, acquire broad scientific knowledge, identify promising areas of professional and scientific activities.	5		V				
Cycle of basic disciplines Component of choice									

5	English for Academic Purposes / Breeding of ornamental animals	<p>Comprehensive theoretical and linguistic, practical and informational-analytical training in order to perform functions related to the use of a foreign language in professional and scientific activities: possession of public speaking skills, conducting discussions, the ability to work with information from various sources, edit texts of professionally significant content in a foreign language.</p> <p>The discipline studies the breeding and maintenance of decorative animals and birds using various methods (enclosure, cage and others), their rational and balanced feeding, modern selection and breeding work, and the prevention of diseases of decorative animals.</p>	5		V				
6	Assessment of Hunting Resources/ Methods vosproyvodstva commercial and rare endangered species	<p>The discipline studies the principles of classification of hunting grounds, the main taxonomic units of the classification of hunting grounds, the rules for their allocation, the characteristics of hunting grounds as a habitat for game animals and as a place of human hunting activities, classification of forages by origin and methods for accounting for their stocks and protection of the hunting fund.</p> <p>The discipline studies the rational use of hunting grounds for the reproduction of commercial animals, rare endangered animals and birds, the development of modern methods of implementation and implementation of biotechnical measures to increase and preserve and reproduce wild animals.</p>	5			V			
7	Ecological tourism in hunting grounds / Ecology and rational prirodopolzvanie	<p>The discipline is aimed at studying the potential of nature reserves, national nature parks, reserves and other specially protected natural areas in order to develop ecological - "green" tourism, which means protecting, preserving and restoring biodiversity and ecosystems when visiting natural areas.</p> <p>The discipline studies the theoretical foundations of ecology and rational nature management, ways to solve environmental problems and ways to prevent them, the legal foundations of rational nature management and nature protection, the</p>	5				V		

		presence of organisms in ecosystems.							
Cycle of profile disciplines University component									
8	Fund of hunting areas and their account	The discipline studies the assessment of hunting resources and hunting grounds, the organization of biotechnical and hunting operations, techniques for obtaining hunting resources.	5					V	
9	Problems of rational use of animals	Regulation and management of hunting animal populations. Organization and conduct of accounting work in the hunting economy, forecasting the reproduction of hunting animals. Acclimatization and survival of hunting animals. The influence of anthropogenic factors. Selective shooting of wild animals. Improvement of protective and testing conditions of hunting grounds.	6					V	
10	Theory and methods of the experiment in the field of game management and farming	The discipline studies the development of agricultural business. Observation and systematization as a method of scientific research. Production experience. Experiment as a research method. Zootechnical experiment. Research of biological processes. The study of the interaction of factors. Studies of biochemical related factors.	5					V	
11	Management and restoration of populations of game animals	The discipline studies modern problems of reproduction and use of resources of hunting animals, prospects for the development of relations to hunting animals, global and regional aspects of the problems analyzed, information for specialists in the field of environmental protection and the use of wildlife resources.	6					V	
12	Merchandising and technology of primary processing of hunting products	The discipline studies the main products of hunting farms. Chemical composition and nutritional properties of meat of wild animals and birds. Primary processing technology, quality determination methods, canning methods and sorting principles. Medicinal raw materials of animal and vegetable origin. Harvesting, primary processing and storage.	5						V
13	Monitoring and production of game animals and birds in the Republic of Kazakhstan	The discipline studies methods of hunting animals. It is possible to make long-term forecasts about the impact of hunting on the fauna of the region and, by regulating the timing and methods of hunting, to some extent manage changes in the qualitative composition of the livestock of wild animals.	6						V

