

### DEVELOPMENT PLAN OF THE EDUCATIONAL PROGRAM «NATURAL RESOURCE USE»

#### Analytical justification of the program. Information about the educational program.

The main goal of the «Natural resource use» educational program is to meet the needs of society for qualified personnel by training environmental specialists who are able to assess the state of ecosystems in modern conditions, use land, natural, industrial and biological resources effectively, and develop environmental measures to reduce the impact of growing man-made environmental pressure and degradation of natural resources in accordance with the Concept for the transition of Republic of Kazakhstan to the "green economy".

The «Natural resource use» educational program has been developed in accordance with the National Qualifications Framework, agreed with the Dublin Descriptors and the European Qualifications Framework, and is designed on the basis of a modular system for studying disciplines that form general cultural and professional competencies.

The peculiarity of the "Environmental Management" educational program also was developed on the basis of the "Environmental Management" educational program of UC Davis University (USA), which ensures the competitiveness of graduates in the labor market.

## The main goals and objectives of the development plan with the dates and stages of its development.

Solving urgent tasks in the field of environmental protection and preventing the negative consequences of the intensive growth in industrial and agricultural production requires the training of competent specialists with a high level of environmental knowledge, a systematic approach and ecological thinking. Thus, the educational program is aimed at realizing the goals and objectives of the national education system. The development priority is the quality organization of all processes: continuous improvement and strengthening of the educational program by taking into account the views of employers, research activities, improving the quality of teaching staff, strengthening the methodological, material and technical base.

### The main objectives of the development plan of the educational program

Nο	The name of the task	Development periods	Development stages
1	Improving and developing the conditions for obtaining full, high-quality professional development	During the entire period of study	Development of measures to improve educational services for the development of professional skills
2	Conducting an update of the content of	During the entire	When updating the content of

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Dear	n of the Fa	aculty of Forestry,
Wild	life and E	Environment
		D.N. Sarsekova
<b>«</b>	<b>»</b>	2021

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	the educational program, forming the main professional competencies of future specialists in the field of environmental protection	1	EP, include disciplines recommended by employers
3	Creating prerequisites for independent search and research activities of students in the framework of the experiment at all its stages of training	II MITTING THE ENTITE	The inclusion of exploratory research and experimental work in the study of EP
4	Development of measures for the development of work with scientific and technical information when using domestic and foreign experience in professional activities	During the entire	Carrying out activities to analyze the results
5	Organization of consultations of employers and scientists of research institutes for choosing topics of relevant and practically significant thesis	During the entire period of study	Creating a list of relevant and practically significant topics, taking into account the proposals of employers

The list of activities of the development plan of the educational program

$N_{\underline{o}}$	Activities	Deadline	Responsible
1	Formation of a commission for	September 2021	Candidate of Biological Sciences,
	updating the development plan		Docent Satybaldiyeva G.K.,
	of the educational program		Doctor of Technical Sciences,
			Professor Bakhov Zh.K., Doctor
			of Agricultural Sciences
			Rakhmanov S.S., Doctor of
			Biological Sciences, Professor
			Aralbai N.K., Candidate of
			Biological Sciences, Docent
			Kuatbaev AT, Candidate of
			Biological Sciences, Docent
			Shupshibaev K.K., Candidate of
			Biological Sciences, Associate
			Professor Utarbayeva A.Sh.,
			Candidate of Technical Sciences,
			Docent Nurbaeva N.A., Candidate
			of Technical Sciences,
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2	Goals and objectives of the updated educational program development plan	September 2021	Candidate of Biological Sciences, Docent Satybaldiyeva G.K., Doctor of Technical Sciences, Professor Bakhov Zh.K., Doctor of Agricultural Sciences Rakhmanov S.S., Doctor of Biological Sciences, Professor Aralbai N.K., Candidate of Biological Sciences, Docent Kuatbaev AT, Candidate of Biological Sciences, Docent Shupshibaev K.K., Candidate of Biological Sciences, Associate Professor Utarbayeva A.Sh., Candidate of Technical Sciences, Docent Nurbaeva N.A., Candidate of Technical Sciences,
3	Updating and improving the content of the EP, including the name of the disciplines that determine the modern professional competencies of a specialist	2021-2025	Candidate of Biological Sciences, Docent Satybaldiyeva G.K., Doctor of Technical Sciences, Professor Bakhov Zh.K., Doctor of Agricultural Sciences Rakhmanov S.S., Doctor of Biological Sciences, Professor Aralbai N.K., Candidate of Biological Sciences, Docent Kuatbaev AT, Candidate of Biological Sciences, Docent Shupshibaev K.K., Candidate of Biological Sciences, Associate Professor Utarbayeva A.Sh., Candidate of Technical Sciences, Docent Nurbaeva N.A., Candidate of Technical Sciences, DocentShynbergenova K.T.,
4	Creation of modern educational and research laboratories for the formation of students' skills in conducting experimental research	2021-2025	Teaching staff of the department
5	Introduction of innovative technologies into the educational process	2021-2025	Teaching staff of the department
6	Conducting a comparative analysis of the development of EP based on the exchange of experience in other domestic and foreign universities	2021-2025	Teaching staff of the department

7	To develop a media plan to inform all interested parties about the changes in the EP in order to increase the information content of the public about the implementation of the EP. Make a plan for monitoring and updating information about the EP on the university's website.	2021-2025	Teaching staff of the department
8	Recording courses of video lectures on the disciplines of the educational program	2021-2023	Utarbayeva A.Sh («Agroecology»), BekpergenovaZh.B. («General Ecology", "Ecology and Sustainable Development"), Kuatbaev AT («Ecology of plants, animals and microorganisms»), DusenovaG.B. («Environmental safety of agricultural products»), Rakhmanov S.S. («Agriculture and the environment») Aralbai N.K. («Conservation and rational use of biological resources»), Shynbergenova K.T. («Ecology and life safety»), Botabekova G.T. («Climate change and the green economy»).
9	Development and implementation of the teaching staff's own research in the field of teaching methods of disciplines within the framework of the EP, including elements of additional and non-formal education, into the educational process	2024-2025	Teaching staff of the department
10	The release of educational and methodological literature in English and Kazakh for undergraduate students according to the working curriculum of the educational program	2021-2025	Teaching staff of the department
11	Targeted training of scientific and pedagogical personnel (PhD doctors) in domestic and foreignuniversities	2021-2025	Teaching staff of the department

12	Invitation of foreign scientists in the field of environmental protection and environmental management from partner universities.	2021-2025	Teaching staff of the department
13	Development of a joint OP with foreign universities in the field of environmental protection and rational use of natural resources	2021-2025	Teaching staff of the department, Teaching staff of specialized foreignuniversities
14	Organization of internships and practices for students in advanced universities and research institutes of the near and far abroad. Strengthen the control of the relevance of contracts and other documentation on the organization of professional practices of students in the framework of the EP	2021-2025	Teaching staff of the department
15	Participation of teaching staff in the framework of advanced training in annual seminars of the Ministry of Ecology, Geology and Natural Resources on changes in environmental legislation	2021-2025	Teaching staff of the department
16	Participation of the head of the EP in training courses /seminars on educational management programs	2025	Candidate of Biological Sciences, Docent Satybaldiyeva G.K.
17	Participation of teaching staff in working groups on the implementation of the development strategy of S.Seifullin KATU	2021-2025	Teaching staff of the department
18	Design of a plan for the development of the department's infrastructure for training taking into account the needs of people with disabilities	2022- 2025	Teaching staff of the department

19	Consideration of the updated development plan of the EP at an expanded meeting of the department with the participation of students and employers	2021-2025	Teaching staff of the department
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Head of the Department "Ecology"

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\_\_Satybaldiyeva G.K.