NON-PROFIT JOINT-STOCK COMPANY
KAZAKH NATIONAL PEDAGOGICAL UNIVERSITY
NAMED AFTER ABAY

INSTITUTE OF NATURAL SCIENCES AND GEOGRAPHY

" I APPROVE "
Director of the Institute

_____ K. Kaimuldinova
"____"_____ 2025

EDUCATIONAL PROGRAM DEVELOPMENT PLAN

6B05202-Ecology

FOR THE YEARS 202 5 -202 9

ALMATY, 2025

The development plan for the educational program 6B05202-Ecology was developed on the basis of the quality policy and the development strategy of ABAI UNIVERSITY » for 202 5 -202 9

Approved at a meeting of the Council of the Institute of Natural Science and Geography

Protocol No. 5 of January 25 , 202 5 g.

Chairman _____ K. Kaimuldinova

Considered at a meeting of the Geography and Ecology public organization group

Protocol No. 5 dated January 15, 2025

Head of the OP_____ D. Aliaskarov

PREFACE

Development plan for the educational program : 6B05202-Ecology for the years 202 5 -202 9 .
Code and Classification : 6B05 Natural Sciences, Mathematics, and Statistics
Code and classification of the **training area :** 6B052 – Environment
Educational program group: B051 - Environment

The program's strategy is aimed at developing and implementing the established competency model, as well as expanding the potential range of employers.

Mission of the educational program : Training scientific personnel capable of meeting the needs of modern science and education for competitive personnel, based on advanced specialist training methods, national ideas, and global trends.

The goal of the educational program : To train highly qualified specialists in the field of ecology and nature management, based on a combination of intensive fundamental training of students in general, theoretical and applied ecology with their gradual inclusion in the production environment and scientific research work.

ANALYSIS OF THE CURRENT SITUATION

General information about the educational program

Developers of the development plan for the OP	Representatives of the department: Tilekova Zh.T., Sabdenalieva G.M., Kuspanova A.K. Employers: RSE "Kazhydromet", LLP "Ecoservice", KSU "No. 159 gymnasium named after Y. Altynsarin Students: 6B05202-Ecology
Academic degree:	Bachelor of Science in Ecology (6B05202-Ecology)
Year of opening :	2008
Language of instruction:	Kazakh, Russian
Form of study:	full-time
Duration of training:	4
Loan volume:	240
Uniqueness of the OP	Providing the knowledge necessary for work in the field of ecology and environmental protection
Graduate model	Upon completion of this educational program, students are expected to be able to: - be able to design personal concepts for knowledge acquisition and self-development; - is able to solve problems communicatively, subject to a combination of forms and types of educational speech activity; - able and willing to use modern information technologies; - able to establish and maintain interpersonal contact; - able to apply basic methods to the analysis and study of the environment; - ready to apply knowledge in natural sciences in practice; - able to conduct experiments, process and present experimental data.
	✓Research ✓Scientific and pedagogical ✓Design and technology ✓Production and management ✓Scientific and design
Academic mobility partners (internal and external)	*External academic mobility.* Pomeranian Academy in Slupsk (Poland); Mykolas-Romyris University (Lithuania); Vilnius University (Lithuania); Nigde Omer

	Halisdemir University (Türkiye); Mu ğ laS ı tk ı Ko ç man ü niversitesi (Türkiye); Giresun University (Türkiye); Firat University (Türkiye); Moscow City Pedagogical University (RF); RGPU named after. A.I. Herzen (St. Petersburg), Moscow State Pedagogical University (Russia), Belarusian State University named after. Maxim Tank (Minsk). *Internal academic mobility.* Aktobe University named after. S. Baisheva; ARU named after K. Zhubanov; Kyzylorda University named after. KorkytAta .
Employment of graduates	- number of graduates in the 2021/2022 academic year - 12 students, of which 10 are employed.
Availability of an appendix to the license for the direction of personnel training	No. KZ29LAA00018497 dated July 28, 2020
Main companies with which we cooperate	Institute of Geography of the NAS RK, Al-Farabi Kazakh National University, ENU named after. Gumilyov, RSE "Kazhydromet", LLP "Ecoservice", KSU "No. 159 gymnasium named after Y. Altynsarin.
Expected final results of the implementation of the development plan of the OP	- improvement of scientific, educational and professional activities of students and teaching staff; - improving the qualifications of teaching staff in the field of innovative environmental technologies; - development of educational and teaching materials; - development and operation of joint educational programs with domestic and foreign partner universities and research institutes

SWOT analysis of the implementation of educational programs

	Strengths	Weaknesses

Internal factors	- the goals and strategy of the program are aimed at the formation and implementation of the established competency model, as well as at expanding the potential circle of employers ; - in-depth study of disciplines to achieve the required level of qualification in the student's chosen field of chemistry. - highly qualified teaching staff; - research and development activities carried out in accordance with the actual needs of the enterprise; - the presence of a developed information infrastructure covering all types of activities ; - marketing activities for effective interaction between the university and the employer; - high level employmentdoctoral students ; - practical orientation of the educational program; - the availability of modern equipment and devices for conducting scientific research; - work of graduates in their specialty - student-centered learning; - continuous monitoring and periodic evaluation of programs.	- absence joint educational programs with foreign universities ; - insufficient level of potential realization in research work (low level to commercialization) ; - low activity Associations graduates And absence endowmentfund.
Favorable opportunities		**Threats and risks**
External factors	- usage opportunitiesacademic freedom; - the presence of a large number of innovative research topics within which master's theses can be completed; - participation PPS departments V international scientific projects ; - informing doctoral students about vacancies and internships and the situation on the labor market; - orientation of the individual towards the development of the ability for self-education in various areas: educational and scientific activities, creativity, professional career ; - improvement of distance education technologies.	- high competition in the market educational services; - economic crisis; - general trend increases cost paid education.

The main risks of the educational program

Name of the risk	Possible consequences	Management mechanisms and measures
Competition in the marketeducational services	Formation public opinion about this OP	Creating a recognizable image of the educational program, increasing the number university grants , positive reviews about this OP , trust, interest , activity Associations graduate in (performances V media), advertising the quality of education ABAI UNIVERSITY to potential employers with the goal of increasing the flow of interesting vacancies for our students and graduates.
Contingent of students	Reductions contingent students	Realization complex measures, directed on preservation contingent, implementation of more effective forms career guidance work; systematic interaction with graduates after completing the bachelor's degree , increasing the number of practice-oriented courses in the EP
Economic crisis	Decrease solvency	Provision the possibility of flexible and phased payment for tuition on a fee-paying basis, individualization of learning , motivation to continue training, individual and group psychological consultations.

1. MAIN TASKS OF EDUCATIONAL PROGRAM DEVELOPMENT

Direction 1. Expanding access to the university’s educational services

No.	Performance indicators	Unit amend.	2022	2023	2024	2025
1.	Contingent of students in OP 6B05205-Ecology	Unit	35	35	35	35
2.	Admission to the OP	Unit	35	35	35	35
3.	Release	Unit	35	35	35	35

Direction 2 . Innovative support for educational activities

No.	Performance indicators (share, percentage, quantity)	Unit amend.	2025	2026	2027	2028	Responsible persons	Completion form
1.	Making a decision on the type of educational program (current, new, innovative, interdisciplinary, additional (minor), joint educational program	units	D -1	D -1	D – 1	D-1	graduating department	OP
2.	Participation of the Public Chamber in the Public Chamber ratings	fact	+	+	+	+	graduating department	Results of the rating u a OP
3.	Accreditation of the OP	fact	+				graduating department	Accreditation Result
4	Post-accreditation monitoring	fact			+		graduating department	Monitoring results
5.	Updating the OP to meet labor market requirements	fact	+	+	+	+	graduating department	Updated OP, Expert opinion
6.	Analysis of the educational program for compliance with the university's strategic development plan	fact	+	+	+	+	graduating department	Minutes of department meetings
7.	Conducting round tables on the implementation of competencies in the educational process	fact	+	+	+	+	graduating department, employers	Certificate protocol
8.	The number of specialists involved in the educational process in the relevant industry	person	1	2	2	2	graduating department	Memorandum agreements
9.	Analysis of the availability of teaching staff with the corresponding potential for the development of OP	%	100	100	100	100	graduating department	Staffing list of the department's teaching staff
10.	Number of faculty members who have completed advanced training courses in the subject area	%	100	100	100	100	graduating department PPS	Certificates, diplomas
11.	The share of graduates of the educational program who are employed in the first year after completion of their studies (from the total number of graduates)	%	100	100	100	100	graduating department	Employment results
12.	The share of graduates of the educational program, trained under state orders, who were employed in the first year after graduation from the university under the educational program	%	100	100	100	100	graduating department	Employment results
13	Percentage of university graduates participating in the assessment of the quality of educational services (full-time education)	fact	50%	50%	50%	50%	graduating department	Presence in the commission
14.	Organization of work within the framework of the "Silver University "	fact	-	+	+	+	graduating department	report
15.	Student participation in determining the content of the program	fact	+	+	+	+	graduating department, students	Among the authors of the OP
16.	Number of employers participating in	units	3	3	3	3	Employers of	Agreements,

	the assessment of the quality of specialist training						the OP	memoranda, expert opinions
17.	The proportion of students participating in the assessment of the teaching activities of the teaching staff	%	50	50	50	50	graduating department students	Survey results
18.	The number of teaching aids developed in the Kazakh language	units	1	2	2	2	graduating department students	Developments by discipline
19.	The number of educational and methodological publications developed by teaching staff on the specifics of the educational program	units	2	3	3	3	graduating department	educational and methodological publications, textbooks
20.	Opening of courses for pedagogical retraining for graduates of non-pedagogical specialties	fact	-	1	1	1	graduating department	Order on the admission of students
21.	Preparing graduates for the NKT	fact	+	+	+	+	graduating department	NKT certificates

Direction 3. Internationalization **of** the program

No.	**Performance indicators (share, percentage, quantity)**	**Unit amend.**	**2025**	**2026**	**2027**	**2028**	**Responsible persons**	**Completion form**
1.	Interuniversity partnership within the framework of the OP: Double-degree OP	units	-	-	-	1	graduating department	SOP, Double-degree OP
	with a foreign university	units	-	-	-	1		
	with a Kazakh university	units	-	-	-	1		
2.	The number of students of the educational program participating in the internal outgoing academic mobility program	units	-	3	3	3	graduating department, center academic mobility	Order, transcript of students
3.	The number of students of the educational program participating in the internal incoming academic mobility program	units	-	3	3	3	graduating department, student	Order, transcript of students
4.	Number of faculty members participating in the internal outgoing academic mobility program	units	-	1	1	1	graduating department PPS center academic mobility	Order, report
5.	The number of faculty members participating in the internal incoming academic mobility program	units	-	1	1	1	graduating department PPS center academic mobility	report
6	Number of foreign scientists attracted	units	1	1	1	1	graduating department	report
7.	The number of faculty members participating in the external outgoing academic mobility program	units	-	1	1	1	graduating department PPS center academic mobility	report

Direction 4. Expansion of the scope of scientific research **and** innovation

No.	**Performance indicators (share, percentage, quantity)**	**Unit**	**2025**	**2026**	**2027**	**2028**	**Responsible persons**	**Completion form**

		amend.						
1.	Number of faculty members participating in educational and research projects	person	-	4	4	4	graduating department	report
2.	The number of teaching staff involved in the implementation of fundamental and applied research	person	-	4	4	4	graduating department	report
3.	Number of publications in editions included in the 1st, 2nd and 3rd quartiles according to Journal data Citation Reports Clarivate company Analytics or those in the Scopus database Cite percentile rank Score	units	1	3	3	3	graduating department	Base indicator
4.	The number of publications of student research articles in journals with a non-zero impact factor included in the databases Thomson Reuters / Scopus	units	-	-	-	-	graduating department doctoral student	Database indicators
5	Participation in international scientific and practical conferences and symposia	fact	4	6	8	6	graduating department	Collection of the magazine , Information in the media and links on social networks
6	Students meet with prominent figures in Earth science	fact	1	1	1	1	graduating department	Information in the media and links in social networks
7	The number of research projects carried out within the framework of international cooperation	units	1	1	1	1	graduating department	report
8	Number of publications of teaching staff in publications recommended by the Committee for Control of Social and Economic Affairs (KKSON)	units	3	3	6	8	graduating department	report
9	Number of teachers participating in the Republican Best Teacher competition	units	-	1	1	1	graduating department	Competition results
10	Number of publications by students	fact	8	8	8	8	graduating department student	report
11	The number of students participating in scientific research and competitions	units	-	1	1	1	graduating department student	report
12	Functioning of scientific centers and laboratories : •	fact	3	3	3	3	graduating department student	Auditorium fund

Direction 5. Improving infrastructure and material and technical base

No.	**Performance indicators (share, percentage, quantity)**	**Unit ame**	**2025**	**2026**	**2027**	**2028**	**Responsible persons**	**Completion form**

		nd.						
1	Development of the computer park	fact	+	+	+	+	graduating department	infrastructure modernizatio n
2	Purchasing software	fact	+	+	+	+	graduating department	infrastructure modernizatio n
3	Purchase of laboratory equipment, etc.	fact	+	+	+	+	graduating department	infrastructure modernizatio n
4	Replenishment of the library collection	fact	+	+	+	+	graduating department	infrastructure modernizatio n
5	Purchasing furniture	fact	+	+	+	+	graduating department	infrastructure modernizatio n

Direction 6. Career guidance work within the framework of the OP

No.	**Performance indicators (share, percentage, quantity)**	**Unit ame nd.**	**202 5**	**202 6**	**202 7**	**2028**	**Responsible persons**	**Completio n form**
1	Providing presentations from students majoring in environmental science on online and offline platforms, handouts with information about this educational program, a list of documents required for admission, as well as the university's rating, its facilities and technical resources, and admission opportunities at ABAI UNIVERSITY	fact	+	+	+	+	graduating department	Report, links on social networks
2	Identifying talented students in their field of study at Kazakhstani and foreign universities	fact	-	+	+	+	graduating department, teaching staff, students	Memorand um, agreement
3	department meetings on career guidance and student recruitment, organizing the work of working groups in key areas.	fact	+	+	+	+	graduating department	Report on the student population
4	Conducting online lessons with the help of teaching staff and providing methodological assistance to support graduates of Abay University	fact	-	+	+	+	graduating department	Report Protocol
5	Providing methodological support to students during research and industrial practice	fact	+	+	+	+	graduating department	Report Protocol
6	With the creation of a collection of video lessons on the topic of "Modern Environmental Problems"	fact	+	+	+	+	graduating department	Report Protocol
7	Implementation of the KIDS UNIVERSITY project	fact	-	+	+	+	graduating department	Report

Direction 7. Educational work within the framework of the OP

No.	**Performance indicators (share, percentage, quantity)**	**Unit ame nd.**	**202 5**	**202 6**	**202 7**	**2028**	**Responsible persons**	**Completio n form**

1	Conducting events within the framework of the Institute's educational work plan	fact	+	+	+	+	graduating department	Report, links on social networks