



NJSC SHAKARIM UNIVERSITY OF SEMEY

DEVELOPMENT PLAN EDUCATIONAL PROGRAM

6B01510 - Biology

Semey

SHAKARIM UNIVERSITY OF SEMEY

APPROVED

Board Member Vice-Rector for Academic
affairs _____ I. Oralkanova

« 06 »

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2023y.



EDUCATIONAL PROGRAM DEVELOPMENT PLAN

«6B01510 – Biology»

(EP code and name) for

2023-2027 years

Semey 2023 y.

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1. Passport of the Development Plan EP «6B01510 – Biology»

1	The basis for the development	Strategic Plan of Shakarim University for 2021-2025 Faculty work plan
2	Developed by the Academic Committee of the EP	Head of AC: Mukayev Zh.T., Dean NMF Manager EP: Sadykova R.A. senior lecturer Members AC: Rakhymzhanova A.M., PhD head of the department, Members AC: Kuanyshbaeva M.G., Candidate of Biological Sciences, associate professor, Kazhygeldieva L.K., Master of Pedagogical Sciences, senior lecturer, Nygmedzhanova G.K. Biology teacher of secondary school №16 named after T.Amanov, Semey, Toleubaeva G.T., head of the city methodical association of biology teachers, biology teacher of the highest category, Zhumabekova Nazgul, Student B-001, EP 6B01510- «Biology» Kaldanova Dana, Student B-001, EP 6B01510- «Biology»
3	Terms of implementation	2023-2027 y.
4	Expected results of implementation	In connection with the improvement of the quality of education, the preparation of a competent, adaptable to the changing conditions of the labor market, competitive, innovation-oriented specialist, approaches to the design of educational programs are changing in the Kazakh higher education system. New conditions change not only the role of education in society, but also its goals, objectives and content, which dictates the need for constant updating of programs, teaching materials.

1.1 Analytical justification of the EP

1.2 Information about the educational program:

The educational program has been developed in accordance with the National Qualifications Framework and Professional Standards, according to the Dublin Descriptors and the European Qualifications Framework.

The typical period of mastering the bachelor's degree program is 4 years.

EP 6B01510 - Biology is developed by the Academic Committee

Considered at the meeting of the Commission on Quality Assurance of the Faculty of Natural Sciences and Mathematics (Protocol № 4/1 «4» april 2023y.)

Approved at the meeting of the Academic Council of the University (Protocol № 8 from 25 april 2023 y.)

The main criterion for the completion of the educational process is the development of at least 240 credits, with the award of a Bachelor of education degree in the educational program 6B01510 - Biology.

1.3 Information about students in the OP

Academic year	2023-2024 Academic year	2024-2025 Academic year	2025-2026 Academic year	2026-2027 Academic year
The basis of training				
Grant	30	32	33	34
Contract	40	40	42	42
In total	70	72	73	76

1.4 Internal and external conditions for the development of EP

EP 6B01510 - Biology includes components for preparation for professional activity. This is reflected in the subject matter and the list of tasks of laboratory and practical classes, in the list of types and forms of performing tasks of independent work of the student. Various forms of classes (traditional and frontal and demonstration experiments, case methods and project methods of teaching, problem and step-by-step, modular teaching methods), the completion of theses, the passage of professional practices also form professional qualities. The activation of cognitive and scientific-creative activity is also facilitated by the participation of students in scientific circles at the department, in seminars, round tables and conferences. The curricula of the courses, the content

of lectures, practical and laboratory classes are adjusted taking into account the updating of the library fund, the requirements of internal and external regulatory documents and concepts of educational development. EP training sessions are held in 15 classrooms. Practical training of students of the EP is carried out through educational and industrial practices, which are the most important link in the system of professional training of future specialists. The practices are focused on deepening, systematization, generalization and concretization of theoretical knowledge acquired at the university, on improving professionally significant skills and abilities.

Students take an active part in creating a learning trajectory in the learning process by participating in the academic mobility program. The organization of external and internal academic mobility at the university is carried out on the basis of the "Regulations on academic mobility of Shakarim University in the Republic of Kazakhstan", taking into account the needs and individual characteristics of students. Academic support for students in choosing a partner university and forming an individual curriculum that provides for the possibility of studying the proposed disciplines is provided by the student advisor and the coordinator of the DEEP.

The University has concluded cooperation agreements on the implementation of programs of external academic mobility of students with 30 universities of foreign countries, as well as internal academic mobility of students with 19 universities of the Republic of Kazakhstan.

The general control over the process of employment of graduates of the university is conducted by the head of the Career and Employment Department. Every year, the university appoints those responsible for employment at the faculty level and at the level of graduate departments. Every year, the university holds a university-wide job fair with the participation of employers in various fields of activity. According to the EP "6B01510 - Biology", specialists are graduated annually, the percentage of employment is 100%.

Dual training in educational institutions is organized during the period of professional training of full-time students, for the acquisition of practical experience, taking into account the content of the modules of the educational program in accordance with the curriculum.

1.4 Information about teaching staff implementing the educational program

№	Indicators	Unit of measurement.	2023-2024 Academic year	2024-2025 Academic year	2025-2026 Academic year	2026-2027 Academic year
1	The share of teaching staff with a degree In EP	%	60	60	65	65
2	Including the share of teaching staff with a degree in the OOD cycle	%	11	11	12	12

1.5 Characteristics of the achievements of the EP

- The demand for specialists with higher pedagogical education in the region;
- The share of graduates who studied under the state order, employed in the specialty is 100%
- Sufficient level of settlement; the share of full-time teaching staff with academic degrees and titles is 53%.
- High lecturing skills and mentoring and the availability of basic education of teaching staff
- The use of innovative teaching methods by teachers in training sessions
- The presence of continuity in two stages of bachelor's - master's degree
- Formation of practical skills of students taking into account the real needs of employers
- Availability of educational laboratories equipped with laboratory equipment and instruments
- The information and library fund in the specialty is completed, all disciplines are provided with educational, methodical and scientific literature
- Provision of nonresident students with a hostel
- Active participation of teaching staff and students in cultural events

The main objectives of the EP development plan

The goals and objectives of the development of EP 6B01510 - Biology in accordance with the mission of the university are:
Training of biology teachers with theoretical and practical knowledge in the field of modern areas of biological sciences and methods of teaching biology, able to apply the acquired competencies in teaching activities.

- Providing professional training and personal development of a teacher who is able to carry out the process of socio-pedagogical education and upbringing of a child at a high level;
- Filling the labor market with competitive teachers focused on professional growth, civic values, social responsibility and competencies in accordance with the requirements of this field of training.
- Fulfillment of the social order of the society for the development and formation of specialists in demand in the system of biological education;
- Improving the quality of education in accordance with the requirements of national and international standards based on the formation of students' motivation for professional improvement and self-realization;
- mastering key, subject and professional competencies for subsequent successful professional activity;
- formation of students' readiness to organize and conduct research activities in the field of biological education.

4 Risk analysis of EP

№	Name of risks	Measures to eliminate
1	Outdated educational and laboratory facilities	Creation of modern educational, research and laboratory facilities on the basis of public-private partnership, purchase of modern laboratory equipment.
2	Weak practical skills of students on the use of modern teaching methods in practice.	To practice the introduction of elements of dual training in educational institutions for the acquisition of practical experience , taking into account the content of the modules of the educational program.
3	Decrease in the level of employment of graduates	To continue the development of the career guidance system for the younger generation, starting from school (both graduates and students of universities themselves, as well as teachers, specialists of the university employment center and employers can help in this);

		To carry out systematic monitoring of the functioning of the quality assurance system of the EP, including its design and management on the basis of facts.
4	Insufficient development of external and internal academic mobility of students and teaching staff	Intensification of international scientific cooperation
5	The risk of reducing the settlement of PPS in the EP	To increase the stability of teaching staff through the admission of young specialists to the PhD program.
6	The development plans of the EP are publicly discussed with a small number of representatives of interested parties, on the basis of proposals and amendments of which it would be possible to make changes in the planning and management of the EP;	To expand the opportunities for the formation of practical skills of students taking into account the real needs of employers;
7	Insufficiently high activity of participation of teaching staff in competitions for the implementation of grant research projects funded by the Ministry of Education and Science of the Republic of Kazakhstan and other funds;	To increase the share of participation of teaching staff in competitions for the implementation of grant research projects funded by the Ministry of Education and Science of the Republic of Kazakhstan and other funds;

5. Action plan for the development of the EP

№	Criteria	Expected results	Unit of measurement	2023 - 2024	2024 - 2025	2025 - 2026	2026 - 2027
Направление 1. Учебно-методическое обеспечение							
1.1	Updating the educational program based on professional standards, taking into account the recommendations of employers	Conducting an examination of EP 6B01510 - Biology in order to improve the practice orientation and development of professional competencies of graduates	fact.	1	1	1	1
1.2	Monitoring and updating catalogs of elective disciplines in accordance with the development of key and professional competencies, the demands of the labor market	Improving the quality of the content of educational programs by including elective courses aimed at developing the key and professional competencies of graduates in accordance with the demands of the labor market.	fact.	1	1	1	1
1.3	Introduction of modern learning technologies into the educational process, contributing to the development of cognitive activity, communicative ability of students	Improving the quality of teaching academic disciplines, taking into account the novelty and variety of forms of work that contribute to the development of cognitive activity of students.	fact.	All disciplines by components by choice	All disciplines by components by choice	All disciplines by components by choice	All disciplines by components by choice

1.3.1	Introduction of mass open online courses (MOOCs) in the educational process according to the educational program 6B01510 - Biology	Introduction of disciplines into the educational process Improving the quality of teaching academic disciplines, taking into account the novelty and diversity of forms of work that contribute to the development of cognitive activity of students.	ed..	1	1	1	1
1.4	Involvement of social partners and employers in the development, examination of the implementation of educational programs	Improving the quality of implemented educational programs taking into account market demands and recommendations of employers	ed..	2	2	2	2
1.5	Development and implementation of elective courses in English	Introduction of disciplines in English into the educational process	ed.	-	-	-	-
1.6	Conducting seminars and round tables on the application of innovative technologies in the educational process	Introduction of innovative technologies in the educational process	ed.	1	1	1	1
1.7	Publication of educational, methodical and scientific literature on the implemented OP	Improvement of educational and methodological support in the disciplines of the implemented educational programs	ed.	2	2	3	4

1.8	Conclusion of contracts with foreign and domestic partner universities in order to develop academic exchange of students of all levels and teaching staff	Creation of a database of foreign and domestic partner universities for the development of academic exchange of students of all levels and teaching staff	ed.	3	3	3	3
1.9	Inviting students from partner universities to study for a semester, short-term internships, internships, etc.	Development of international recognition of educational programs, implementation of academic mobility programs for students	person	-	1	1	2
1.10	Participation of teaching staff and students in international academic exchange programs	Development of international cooperation with foreign universities implementing educational programs in the field of	person.	-	-	-	1
1.11	Development of outgoing academic mobility of teaching staff and students in the direction 6B01510 - Biology	Improvement of the educational program based on the use of the experience of implementing such programs in leading foreign universities	person	4	5	6	6
Direction 2. Teaching staff							
2.1	Professional development and training of scientific and pedagogical personnel for the implementation of educational programs once every 5 years	The share of teaching staff who have passed advanced training at the national and international level is at least 20%	person	3	4	4	5

2.2	Advanced training, retraining, internships of teaching staff at the international level	Completion of at least 2 teachers of the advanced training program, retraining, internship PPP at the international level	person.	1	1	2	2
2.3	Promotion of publications of the works of teaching staff in international publications indexed by the Web of Science and Scopus databases	Increase in the share of teaching staff who have published the results of scientific research in publications indexed by Web of databases Science and Scopus – at least 30% of the total number of teaching staff	%	30	30	30	30
2.4	Involvement of practical specialists in teaching and scientific activities	Participation in the implementation of educational programs of practitioners (at least 20% of specialists)	%	20	20	20	20
Direction 3. Internationalization of educational programs							
3.1	Conclusion of agreements on international cooperation with foreign universities	Implementation of joint projects, preparation of scientific publications with foreign partners, creation of bases for scientific internships of students	ed	5	5	6	6
3.2	Attracting foreign students to study under the educational program 6B01510 - Biology	Increasing the number of foreign students	person	1	1	2	3

3.3	Organization of joint scientific and practical events with international partners	Improving the efficiency of scientific and methodological activities Teaching staff, exchange of experience with foreign partners	ed.	1	1	2	2
3.4	Invitation of foreign specialists to give lectures and consultations on master's projects and dissertations	Improvement of the content component of educational programs based on the introduction of the experience of foreign specialists in the implementation of educational programs	ed	-	1	1	1
3.5	Expansion of cooperation with Leading foreign scientific and educational organizations in order to attract the most qualified foreign specialists to the implementation of educational programs	Formation of key and professional competencies in accordance with the practice of leading universities	person	-	-	-	-
Direction 4. Logistics and digitalization							
4.1	Step-by-step equipment of classrooms with technical training tools (projectors, panels, interactive and multimedia whiteboards, multifunction devices, webcam, projector screen, etc.)	Equipping classrooms assigned to the department with technical training facilities (projectors, panels, interactive and multimedia whiteboards, multifunction devices, webcam, projector screen, etc.)	ed	1	1	2	2

4.2	Automation of the educational process (testing, session management, student contingent movement, dean's office, department, teaching staff workload, schedule, library, syllabuses)	Information management based on the automation of the educational process (testing, session management, student contingent movement, dean's office, department, teaching staff workload, schedule, library, syllabuses)	fact	All	All	All	All
4.3	Replenishment of the full-text database of research results of teaching staff and students (articles, monographs, etc.)	Increasing the number of results of scientific works of scientists research results of teaching staff and students (articles, monographs, etc.)	ed	1	2	2	2
4.4	Expansion of the fund of scientific and educational literature, including on electronic media for the implemented educational programs	Ensuring the implementation of educational programs based on modern educational and information resources, including on electronic media	%	100	100	100	100
4.5	Monitoring the content and improvement of the faculty's website	Formation of the faculty's website on various aspects of the implementation of educational programs	%	100	100	100	100

Head of the Department _____

PhD Rakhymzhanova A.M.

Reviewed

at the meeting of the quality assurance commission NMF minutes of meetings №6 from 06 june 2023y.

Chairman Z. Bay Zheldybaeva B.S.

Agreed

Dean of the faculty Z. Bay Mukaev.Zh.T.

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