



NJSC SHAKARIM UNIVERSITY OF SEMEY

# **DEVELOPMENT PLAN EDUCATIONAL PROGRAM**

7M01505- Biology

Semey

**NPJSC «Shakarim University of Semey»**

Approved by  
Member of the Board  
Vice – Rector for academic affairs  
Indira Oralkanova  
« 26 » 2023y.



**EDUCATIONAL PROGRAM DEVELOPMENT PLAN**  
7M01505 - Biology  
for 2023-2025

Semey 2023

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## 1 Passport of the Development Plan of EP "7M01505 – 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 OP	<p>Head of AK: Mukaev Zh.T., Dean of FNM            EP Manager: Sadykova R.A., senior lecturer            Members of the AK: Rakhimzhanova A.M., PhD Head of the Department            Nygmedzhanova G.K. biology teacher of secondary school No. 16 named after T.Amanov G.Semey            Toleubaeva G.T., head of the city methodical association of biology teachers, biology teacher of the highest category.            Turysbekova A.A. undergraduate MBE-201, 7M01505- "Biology" Omerkhanova G.S. undergraduate MBE-201, 7M01505- "Biology"            Employer: Toleubaeva G.T., head of the city methodical association of biology teachers, biology teacher of the highest category,            (in accordance with Order No. 99 of 29.03.2023)</p>
3	Terms of implementation	2023-2025
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.

## **2. Analytical justification of the EP**

### **2.1. 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 master's degree program is 2 years.

EP 7M01505 - Biology was developed by the Academic Committee.

Reviewed at the meeting of the Commission for Quality Assurance of the Faculty of Natural Sciences (Protocol No. 4.1 of April 4, 2023).

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

The main criterion for the completion of the educational process is the development of at least 120 credits, with the award of a Master of Pedagogical Sciences degree in the educational program 7M01505 - Biology.

### **2.2. Information about students in the EP**

Academic year	2023-2024 academic year	2024-2025 academic year
The basis of training		
Grant	6	6
Contract	3	3
Total	9	9

### **2.3 Internal and external conditions for the development of EP**

The EP 7M01505 - 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-based and step-by-step, modular methods of teaching), the implementation of master's theses, the passage of professional practices also form professional qualities. The activation of cognitive and scientific and creative activities is facilitated by the participation of undergraduates 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 development concepts

education. EP training sessions are held in 15 classrooms. The practical training of students of the EP is carried out through industrial practices and research work, 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.

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. Also, the university holds a university-wide job fair with the participation of employers in various fields of activity. According to the EP "7M01505 - Biology", specialists are graduated annually, the percentage of employment is 100%.

Dual training in educational institutions is carried out during the period of professional training of full-time students, in order to acquire practical experience, taking into account the content of the modules of the educational program in accordance with the curriculum.

#### **2.4. Information about teaching staff implementing the educational program**

<b>№</b>	<b>Indicators</b>		<b>2023-2024</b> academic year	<b>2024-2025</b> academic year
1	The share of teaching staff with a degree in OP	%	93	93
2	Including the share of teaching staff with a degree	%	93	93

#### **2.5 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 93 %;
- ✓ 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.

### **3The main objectives of the EP development plan**

The goals and objectives of the development of EP 7M01505 - Biology in accordance with the mission of the university are:

- ✓ training of biology masters 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;
- ✓ provision of 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 readiness of undergraduates to organize and conduct research activities in the field of biological education.

#### 4 EP risk analysis

№	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 and private
2	Weak practical skills of students in the use of modern methods	partnerships, purchase of modern laboratory equipment.
3	of scientific research.	To practice the introduction of modern techniques and methods of scientific research in biology.
4	Insufficient development of external and internal	Intensification of international scientific cooperation
5	academic mobility of undergraduates and teaching staff	To increase the stability of teaching staff through the admission of young
6	The risk of reducing the settlement of PPS in the PLO	specialists to the PhD program.



### 5. Action plan for the development of the EP

№	Criteria	Expected results	Ed. ed.	2023 2024	2024- 2025
1.1	Updating the educational program based on professional standards, taking into account the recommendations of employers	Conducting an examination of EP 7M01505 - Biology in order to improve the practice orientation and development of professional competencies of graduates	fact.	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	fact.	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
1.3.1	Introduction of mass open online courses (MOOCs) in the educational process according to the educational program 7M01505 - Biology	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	unit	1	1
1.4	Involvement of social partners and employers in the development, examination and implementation of educational programs	Improving the quality of implemented educational programs taking into account market demands and recommendations of employers	unit	2	2

<b>1.5</b>	Development and implementation of elective courses in English	Introduction of disciplines in English into the educational process	unit	-	-
<b>1.6</b>	Conducting seminars and round tables on the application of innovative technologies in the educational process	Introduction of innovative technologies in the educational process	unit	1	1
<b>1.7</b>	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	unit	2	2
<b>1.8</b>	Conclusion of contracts with foreign and domestic partner universities in order to develop academic exchange of students	Creation of a database of foreign and domestic partner universities for the development of academic exchange of students of all levels and teaching	unit	5	5
<b>1.9</b>	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	Hum.	-	1
<b>1.10</b>	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	Hum.	-	-
<b>1.11</b>	Development of outgoing academic mobility of teaching staff and students in the direction of OP 7M01505 - Biology	Improvement of the educational program based on the use of the experience of implementing such programs in leading foreign universities	Hum.	1	2

**Direction 2. Professorial Teaching staff.**

2.1	Professional development and training of scientific and pedagogical personnel for the implementation	The share of teaching staff who have passed advanced training at the national and international level is at least 20%	Hum.	2	3
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, internships of teaching staff at the international level	Hum.	1	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 the Web of Science and Scopus databases – at least 30% of the total number of teaching staff	%	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
<b>Direction 3. Internationalization of educational programs</b>					
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	unit	30	32
3.2	Attracting foreign students to study under the educational program 7M01505 - Biology	Increasing the number of foreign students	Hum.	1	1
3.3	Organization of joint scientific and practical events with international partners	Improving the efficiency of scientific and methodological activities of teaching staff, exchange of experience with foreign partners	unit	2	3

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	unit	-	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	Hum.	-	-
<b>Direction 4. Logistics and digitalization.</b>					
4.1	Step-by-step equipping of classrooms with technical training tools (panels, interactive and multimedia whiteboards, multifunctional devices, webcam, etc.)	Equipping classrooms assigned to the department with technical training tools (panels, interactive and multimedia whiteboards, multifunctional devices, a webcam, etc.)	unit	7	9
4.2	Automation of the educational process (testing, session management, movement of the contingent of undergraduates, dean's office, department, teaching staff load, schedule, library, syllabuses)	Information management based on the automation of the educational process (testing, session management, movement of the contingent of undergraduates, dean's office, department, teaching staff load, schedule, library, syllabuses)	fact.	All EIsO	All EIsO

4.3	Replenishment of the full-text database of research results of teaching staff and students, teaching staff (articles, monographs, etc.)	Increase in the number of results of scientific works of scientists, research of teaching staff and students, teaching staff (articles, monographs, etc.)	unit	2	3
4.4	Expansion of the fund of scientific and educational literature, including on electronic media for implemented educational programs	Ensuring the implementation of educational programs based on modern educational and information resources, including on electronic media	%	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	%	100	100

Head of the Department \_\_\_\_\_  Rakhimzhanova A.M.

### Reviewed

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

Chairman \_\_\_\_\_  Zheldybaeva B.S.

### Agreed

✓ Dean of the faculty \_\_\_\_\_  Mukaev Zh. T.

«\_\_» \_\_\_\_\_ 2023y.

