



NJSC SHAKARIM UNIVERSITY OF SEMEY

DEVELOPMENT PLAN EDUCATIONAL PROGRAM

6B07202 - Technology of Food Products

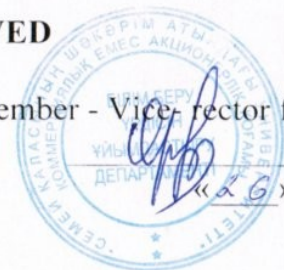
Semey

NON-PROFIT JOINT-STOCK COMPANY «SHAKARIM UNIVERSITY OF SEMEY»

APPROVED

Board member - Vice-rector for academic affairs

I. Oralkanova



« 6 » 05 2023

EDUCATIONAL PROGRAM DEVELOPMENT PLAN

6B07202 - «Food technology»

2023-2027

Semey 2023

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1. Passport of the Development Plan of the Bachelor's EP 6B07202 - « Food technology»

1	Basis for development	Strategic Plan of Shakarim University, Faculty Work Plan
2	Developed by the Academic Committee of the EP	<p><i>Head of AK:</i> Nurymkhan G.N., Dean of the Faculty of Engineering and Technology, assoc. Professor</p> <p><i>EP Manager:</i> Smolnikova F.H., Candidate of Technical Sciences, Associate Professor</p> <p><i>AK members:</i> Kakimova Zh. Kh., head of the department, candidate of technical sciences; assoc. Professor; Kambarova Arai Saginbekovna – senior lecturer of the Department of "Food Production Technologies and Biotechnology" Kalikanov Ali Maratovich – director of KH "Kalikanuly", dairy shop "Aisha Musina Anar Mauletkanovna – Director of Semnan LLP Amangeldieva Sabina Yerbolkyzy – student of the PP-001 group , EP "6B07202 Technology of food products" Nurgazina Aruzhan Serikovna – student of the PP-101 group, EP "6B07202 Technology of food products"</p>
3	Implementation deadlines	2023-2027
4	Expected results of implementation	<p>Obtaining deep theoretical and practical knowledge and skills, assuming a clear orientation of students to successful professional activity, personal growth that meets the requirements of employers.</p> <p>Achieving a high level of quality of higher education that meets the needs of the labor market, the tasks of industrial and innovative development of the country, the individual and corresponds to the best world practices in the field of education</p>

2. Analytical justification for 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 bachelor's degree program is 4 years.

OP "6B07202 "Technology of food products" was developed by the Academic Committee.

Considered at the meeting of the Quality Assurance Commission of the Faculty of Engineering and Technology (Protocol No. 4/6 of "10" 04 2023

Approved at the meeting of the Academic Council of the University (Protocol No. 8 of "25" 04 2023

The main criterion for the completion of the educational process is the development of at least 240 credits, with the award of a bachelor's degree in Food Technology.

The content of the educational program is established by the following documents:

- License to conduct an educational program;

- The state mandatory standard of education at all levels of education. (Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 604. Registered with the Ministry of Justice of the Republic of Kazakhstan on November 1, 2018 No. 17669).

The University has documented the procedures and forms for the development, approval, quality assessment and improvement of the OP ("Regulations on the modular educational program"; "Regulations on the Academic Council"; "Plans for the development of the OP"; "Graduate models").

According to this educational program, the schedule of the educational process (academic calendar), the catalog of elective disciplines, working curricula for the entire period of study, including the corresponding cycles of disciplines – general education, basic and profiling, have been approved. Each cycle consists of disciplines of a mandatory component, a university component, a component of choice.

The total amount of theoretical training is 240 credits 7200 hours (1 credit is equal to 30 hours), including:

OOD cycle(OK) – 51 credits (1530 hours)

OD(VC) cycle -5 credits (150 hours)

DB, PD (VC, KV) cycle – 176 credits (5280 hours)

FSC– 8 credits (240 hours)

The educational program is implemented for students by the graduating department of "Food Production Technology and Biotechnology"

The uniqueness of the program lies in the opportunity for students to participate in scientific programs, startup projects, realize their creative possibilities through scientific research, creative projects, sports events, as well as continue further studies in master's and doctoral studies.

2.2 Information about students

Academic year	2023-2024 academic year	2024-2025 academic year	2025-2026 academic year	2026-2027 academic year
Basics of training				
Grant	110	110	110	110
Contract	6	7	8	9
Total	116	117	118	119

2.3 Internal and external conditions for the development of educational programs

For the development and implementation of the educational program 6B07202– Food technology, the department has created favorable and optimal conditions such as:

- highly qualified teaching staff;
- high material and technical equipment of the OP;
- close cooperation with employers;
- modern educational and methodological base, with students' access to information and analytical resources of the world scientific world;
- application of modern and interactive TSO ;
- academic mobility (external and internal);
- high-quality professional infrastructure (educational resources);
- there are educational laboratories equipped with special equipment and materials for conducting laboratory and practical classes.
- The provision of educational programs with educational and methodological complexes of disciplines is 100%.
- The teaching staff of the department have personal computers and free Internet access.

The availability of high-quality professional infrastructure (educational resources) necessary for the implementation of the OP is a guarantee of the training of highly qualified specialists of modern times.

At the department, the base of practice is determined for students according to the educational program, agreements and contracts are concluded with enterprises for passing educational, industrial and pre-graduate practices. Currently , there are concluded and valid agreements on the passage of production technological practices in the following enterprises:

1. Sausage shop of IP "Masaeva A.T.", Semey
2. K\X "Kalikanuly", Semey, (Aisha)
3. IP "Alpieva G.A." Restaurant "Ken dala", Semey
4. Bagration LLP , Semey
5. Halva LLP, Semey

6. IP "Alteev B.R." Sausage shop "Asau", Semey
7. Vostok-Moloko Corporation LLP, Ust-Kamenogorsk, East Kazakhstan region

Internal and external academic mobility is carried out for students. The University has a corresponding regulation "P 042-1.08-2019 Regulation on academic Mobility of Shakarim University". Among the partner universities for academic mobility there are both leading domestic universities (Almaty Technological University, S. Seifullin KATU, Zhangir Khan West Kazakhstan State University) and foreign universities (Pamukkale University, Turkey; Czech Agrotechnical University, Czech Republic, Prague). A memorandum of cooperation was signed with Northwest China University of Agriculture and Forestry - Northwest A&F University (China, Xinyang, Shaanxi Province)

2.4 Information about teaching staff implementing the educational program

№	Indicators	Units of measurement	2023-2024 academic year	2024-2025 academic year	2025-2026 academic year	2026-2027 academic year
1	Share of teaching staff with an academic degree in EP	%	53	54	55	55
2	Including the share of teaching staff with an academic degree in the cycle of general education disciplines	%	26	26	27	27

2.5 Characteristics of the achievements of the EP

In 2021, the educational program 6B07202 "Food Technology" was accredited for a period of 3 years by the Independent Accreditation and Rating Agency ENQA (16.04.021-15.04.2024), Number AB 3265.

3. Main objectives of the EP development plan

The educational program "Technology of food products" was created based on the request of employers.

The main goal of the OP and its development is the formation of a competitive competent specialist in the food industry that meets the requirements of modern industrial production as much as possible.

The main objectives of the development plan are the following:

№	Name of the task	Terms of development	Stages of development
	Training of in-demand personnel with higher and postgraduate education, meeting the needs of the internal and external labor market	The entire period of study 2023 – 2027	Planning the work of the department in accordance with the criteria and requirements for assessing the quality of education of state and international accreditation centers (NCAOKO, NAAR, ACQUIN, RRA)
1	Providing conditions for obtaining a full-fledged, high-quality professional education	The entire period of study 2023 – 2027	Development of measures to improve the quality of educational services for the development of professional skills of future specialists
2	Formation of the main professional competencies of future specialists	The entire period of study 2023 – 2027	Updating the content of the OP. Acquisition of professional competencies in the field of food production.
3	Graduation of competitive specialists with knowledge of a professional foreign language	The entire period of study 2023 – 2027	<ul style="list-style-type: none"> - increase in the proportion of students studying at least one semester in foreign universities in a foreign language (from 5 to 10 until 2023); - study of a foreign language teaching staff of the department; - participation in international competitions for language internships of teaching staff abroad.
4	Interaction of the university with employers to assess the competencies of university graduates, satisfaction with the quality of graduate training	The entire period of study 2023 – 2027	<ul style="list-style-type: none"> involvement of employers in the development and implementation of an educational program; - conclusion of contracts for practical training on the basis of leading food enterprises; - increasing the share of the dual training system (up to 3-4 disciplines by 2026) at leading food and industrial enterprises
5	Increasing the research potential of the EP	The entire period of study 2023 – 2027	<ul style="list-style-type: none"> - active participation of scientists in state competitions for grant funding of research projects; -involvement of students in research activities with subsequent publication of research results in foreign scientific publications with a non-zero impact factor

4. Risk Analysis of the Educational Program

№	Name of risks	Measures to eliminate
1	Reduction of the contingent of students in the EP	Strengthening career guidance
2	Insufficient level of language knowledge for the introduction of trilingual education	Advanced training of teaching staff through language courses
3	Decrease in the level of employment	Conducting a graduate fair
4	Insufficient development of external and internal academic mobility of students and teaching staff	To activate the mobility of teaching staff and students, to develop an action plan for academic mobility
5	The risk of reducing the settlement of PPS in the PLO	Increasing the degree of settling down by defending doctoral dissertations
6	Insufficient provision of educational and methodological literature on professional disciplines in the state and English languages	To plan the annual release by scientists and teaching staff of scientific and educational literature in the state and English languages, according to the working curriculum of students
7	The traditional way of conducting classes	To improve and introduce into the educational process innovative technologies of teaching and providing educational services at the level of world standards
8	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
9	Small academic groups of students in Russian	Formation of a contingent of students of this profile through career guidance and information and advertising work, creation of multilingual learning groups
10	To intensify work on improving the qualifications of teaching staff in research institutes and Universities abroad for the implementation of academic mobility;	Completion of advanced training courses in leading universities
11	To take an active part in competitions announced by the Ministries of the Republic of Kazakhstan and international organizations for grants of funded research works;	To intensify work among teaching staff to participate in competitions announced by the Ministries of the Republic of Kazakhstan and international organizations for grants of funded research works;

5. Action plan for the development of EP


№	Criteria	Expected results	Unit	2023-2024 academic year		2024-2025 academic year		2025-2026 academic year		2026-2027 academic year	
				plan	Actual Execution	plan	Actual Execution	plan	Actual Execution	plan	Actual Execution
Direction 1. Educational and methodological support											
1.1	Updating the educational program based on professional standards, taking into account the recommendations of employers	Conducting an examination of the Educational program «6B07202 - Food technology » in order to increase practice orientation and develop professional competencies of graduates	fact.	-		+		-		+	
1.2	Monitoring and updating catalogs of elective disciplines in accordance with the development of key and professional competencies and labor market demands	Improving the quality of the content of educational programs by including elective courses aimed at developing key and professional competencies of graduates in accordance with the demands of the labor market	fact.	+		+		+		+	
1.3	Introduction into the educational process of modern teaching technologies that contribute to the development of cognitive activity and 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	fact.	+		+		+		+	

1.3.1	Introduction into the educational process of massive open online courses (MOOC) according to the educational program «6B07202- Food technology »	Introduction of disciplines into the educational process 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	
1.4	Involving social partners and employers in the development and examination of the implementation of educational programs	Improving the quality of implemented educational programs taking into account market demands and employer recommendations	unit	1		1		1		1	
1.5	Development and implementation of elective courses in English	Introduction of disciplines in English into the educational process	unit	-		-		1		1	
1.6	Conducting seminars and round tables on the use of innovative technologies in the educational process	Introduction of innovative technologies into the educational process	unit	1		1		2		2	
1.7	Publication of educational, educational-methodological and scientific literature on implemented educational programs	Improving educational and methodological support in the disciplines of implemented educational programs	unit	2		2		2		2	
1.8	Concluding agreements with foreign and domestic partner universities in order to develop academic exchange of students of all levels and teaching staff	Creation of a base of foreign and domestic universities - partners for the development of academic exchange of students of all levels and teaching staff	unit	-		1		1		1	
1.9	Inviting students from partner universities to study for a semester, short-term internships, practice, etc.	Development of international recognition of educational programs, implementation of academic mobility programs for students	number of people	-		1		1		1	

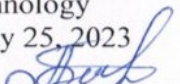
1.10	Participation of teaching staff and students in international academic exchange programs	Development of international cooperation with foreign universities implementing educational programs in the field of Biotechnology	number of people	1		1		1		1	
1.11	Development of outgoing academic mobility of teaching staff and students in the direction «6B05102-Biotechnology»	Improving the educational program based on the experience of implementing similar programs in leading foreign universities	number of people	1		1		1		1	
Direction 2. Teaching staff											
2.1	Increasing the professional level and training of scientific and pedagogical personnel for the implementation of educational programs once every 5 years	The share of teaching staff who have undergone advanced training at the republican and international level is at least 20%	number of people	2		2		2		2	
2.2	Completion of advanced training, retraining, internship of teaching staff at the international level	Completion of at least 2 teachers in advanced training, retraining, and internship programs for teaching staff at the international level	number of people	2		2		2		2	
2.3	Promotion of publications of teaching staff works in international publications indexed by the Web of Science and Scopus databases	Increasing 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		31		32		33	
2.4	Involving specialists from the practical field of activity in teaching and scientific activities	Participation in the implementation of educational programs of practitioners (at least 20% of specialists)	%	20		20		21		21	
Direction 3. Internationalization of educational programs											

3.1	Concluding agreements on international cooperation with foreign universities	Implementation of joint projects, preparation of scientific publications with foreign partners, creation of bases for scientific internships for students	unit	-		1		1		1	
3.2	Attracting foreign students to study under the educational program «6B07202-Biotechnology»	Increase in the number of foreign students	number of people	-		-		1		1	
3.3	Organization of joint scientific and practical events with international partners	Increasing the efficiency of scientific and scientific-methodological activities of teaching staff, exchange of experience with foreign partners	unit	1		1		1		1	
3.4	Inviting foreign specialists to give lectures and provide consultations on master's projects and dissertations	Improving the content component of educational programs based on the introduction of the experience of foreign specialists in the implementation of educational programs	unit	1		1		1		1	
3.5	Expanding 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	number of people	1		1		1		1	
Direction 4. Logistics and digitalization											
4.1	Stage-by-stage equipment of classrooms with technical teaching aids (projectors, panels, interactive and multimedia boards, multifunctional devices, webcam, projector screen, etc.)	Equipping classrooms assigned to the department with technical teaching aids (projectors, panels, interactive and multimedia boards, multifunctional devices, webcam, projector screen, etc.)	unit	1		1		1		1	

4.2	Carrying out automation of the educational process (testing, session management, student movement, dean's office, department, teaching staff load, schedule, library, syllabuses)	Information management based on automation of the educational process (testing, session management, student movement, dean's office, department, teaching load, schedule, library, syllabuses)	fact.	+		+		+		+	
4.3	Replenishment of the full-text database of scientific research results of teaching staff and students, teaching staff (articles, monographs, etc.)	Increasing the number of results of scientific works of scientists, research of teaching staff and students, teaching staff (articles, monographs, etc.)	unit	10		11		12		12	
4.4	Expansion of the fund of scientific and educational literature, including on electronic media for ongoing educational programs	Ensuring the implementation of educational programs based on modern educational and information resources, including on electronic media	%	10		11		12		12	
4.5	Monitoring the content and improvement of the faculty website	Formation of the faculty website on various aspects of the implementation of educational programs.	%	20		21		22		22	

Head of the department  Kakimova Zh.Kh.

REVIEWED

at a meeting of the Commission for Quality Assurance of Engineering
Faculty of Technology
Protocol 5, May 25, 2023
Chairman  Abdilova G.B.

APPROVED

Dean of the Faculty of Engineering and
Technology  Nurymkhan G.N.
May 26, 2023

