



DEVELOPMENT PLAN

EP "7M07324 – Land use planning "

1 General information

The OP "7M07324 – Land Management" was developed in accordance with the National Qualifications Framework, corresponds to the Dublin Descriptors and the European Qualifications Framework, and is designed based on a modular system for studying disciplines that form general cultural and professional competencies.

The uniqueness of the educational program "7M07324 – Land Management" lies in the formation of students' comprehensive competencies in the field of land management, including maintaining a land registry, registering land rights and applying the regulatory framework in the development of projects aimed at ensuring the openness, security, resilience and environmental sustainability of cities and towns.

The program is aimed at training specialists capable of carrying out various design, production, technological, organizational and managerial activities at a high technical level in the public and private sectors, in organizations of any form of ownership, with the aim of ensuring the openness, security, resilience and environmental sustainability of cities and towns.

Thanks to a practice-oriented approach and cooperation with public and private structures, students acquire the necessary skills for professional activity, which increases their competitiveness in the labor market.

The development plan of the OP "7M07324 – Land Management" is consistent with the key indicators of the development program of the MDIG Department with the specification of strategic planning indicators, reflecting risk analysis and assessment, implementation of activities depending on the identified risks, guarantees of achieving the planned results (Appendix).

2 Planning the educational program

Planning and management of the educational program "7M07324 – Cadastre and geospatial planning" is carried out on the basis of priority areas and strategic goals of K.I. Satpayev KazNTU (<https://official.satbayev.university/ru/university/mission-strategy>) and the O.A. Baikonurov Mining and Metallurgical Institute, reflecting the vision, mission, strategic directions and key performance indicators (<https://official.satbayev.university/ru/mining-metallurgy>),.

3 The purpose of OP development

The purpose of the educational program is to train competitive specialists in the field of land management, who possess critical thinking and are able to use theoretical and practical knowledge for informed decision-making in non-standard situations, critical assessment of information and development of sustainable solutions in the field of land use.

4 Objectives of EP development

4.1 Graduate's preparation for organizational activities that exclude negative phenomena in professional activities, the development of spiritual values, moral and ethical norms of a person as a member of society, the implementation of the legal and legislative system of the Republic of Kazakhstan with a high level of professional culture, civic position;

4.2 Preparing graduates for continuous self-improvement and self-development, mastering new knowledge, skills and abilities in innovative areas of cadastre and geospatial planning;

4.3 Graduate training based on the diversity and dynamism of the curriculum's catalog of

elective subjects, with a predominance of practical skills in competencies, capable of performing professional functions within one or more types of activities based on the final learning outcomes that take into account the specifics of these types of activities, market requirements for organizational, managerial, and professional competencies;

4.4 Graduate training as a competitive specialist in the field of cadastre and geospatial planning, including on the basis of increasing the international aspect in educational and scientific programs, competent in the field of advanced technologies of cadastre and geospatial planning, and registration of research results.

5 Risks of EP implementation (SWOT analysis)

<i>S (strength) – strengths (potentially positive internal factors)</i>	<i>W (weakness) – weaknesses (potentially negative internal factors)</i>
1. Brand awareness of the university; 2. Positive image in the educational services market of the Republic of Kazakhstan; 3. Availability of opportunities and experience of using interactive technologies in the educational process based on modern information technologies; 4. Availability of information systems for determining borrowing in order to implement the principles of academic integrity; 5. Availability of partnerships and cooperation agreements with scientific organizations and foreign universities 6. Dynamically developing material and technical base and high level of informatization of the educational process. 7. Increasing the classroom fund and equipping it with modern technical facilities 8. Availability of sufficient book stock in libraries. 9. The provision of the UMKD of the entire complex of disciplines of the OP department. 10. Stable financial position 11. Involved teaching staff with experience in the scientific and educational field and production 12. Conducting classes on the bases of the department's branches. 13. Increasing the quality of the department staff	1. Insufficient volume of scientific work on a contractual basis; 2. Unmet need for a dormitory. 3. The lack of licenses to carry out a number of specialized works, which narrows the university's ability to participate in tenders. 4. Low commercialization rate. 5. Poor communication with regional universities.
<i>O (opportunity) – favorable opportunities (potentially positive external factors)</i>	<i>T (threat) – threats (potentially negative external factors)</i>
1. High demand for highly qualified scientific and pedagogical staff; 2. Introduction of new courses and disciplines in accordance with the requirements of the labor market; 3. Conducting PR events, career guidance among applicants (bachelor's degree graduates). 4. Almaty is the largest financial, industrial, and socio-cultural center of the Republic of	1. Increase in the cost of equipment due to inflationary costs; 2. Reducing the financial capacity of enterprises to allocate funds for research and development and conclude business contracts. 3. Unstable level of automation of business processes during the UNT 4. Insufficient quality of information

Kazakhstan, generating steady demand in the labor market. 5. Openness of mining and metallurgical and other manufacturing enterprises to cooperate with technical universities and provide internship opportunities. The demand for graduates of accredited educational institutions in the labor market.	services provided by Internet providers in rural districts 5. Insufficient fundamental training of applicants entering the university and poor knowledge of foreign languages by applicants
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Long-term action plan for the development and improvement of the educational program

	Event content	Responsible performers	Deadlines for execution
1	Study and analysis of the competitive environment, identifying opportunities of the department to enhance the image and attractiveness of the educational program for consumers of educational services (prospective students, current students, parents, business partners).	Head of the Department, teaching staff	2024-2026
2	Utilization of advanced marketing and digital technologies to promote distance education services.	Head of the Department, teaching staff	2024-2026
3	Strengthening career guidance activities and attracting prospective students through tripartite agreements.	Directorate, Head of the Department, teaching staff	2024-2026
4	Involving academic staff (teaching and research personnel) from among stakeholders in the educational process.	Head of the Department, teaching staff	2024-2026
5	Development and implementation of digital interactive learning formats, combining theoretical and practical teaching methods and approaches.	Head of the Department, teaching staff	2024-2026
6	Preparation of an educational program for specialized accreditation for compliance with education and agency quality standards	Head of the Department, teaching staff	2024-2026
7	Provision of all types of disciplines with textbooks, teaching aids, educational and methodical complexes with digital remote support, electronic educational materials, multimedia educational resources	SL, Head of the Department, teaching staff	2024-2026
8	Development and use of case databases, training thematic computer programs in the field of KiGP	Head of the Department, teaching staff	2024-2026
9	Conducting seminars and masterclasses, and mastering digital teaching formats with the involvement of IT-специалистов	Head of the Department, teaching staff	2024-2026
10	Development of new forms of independent student work, as well as electronic assessment materials for self-evaluation.	Head of the Department, teaching staff	2024-2026

11	Conducting seminars that involve student volunteer activities, as well as seminars and masterclasses aimed at enhancing knowledge and teaching methodologies, in collaboration with stakeholders, public foundations, non-governmental organizations, research institutes, and other universities.	Head of the Department, teaching staff	2024-2026
12	Development of a digital rating system for verifying students' knowledge, ensuring the accessibility of assessments	RO, DAW, Head of the Department, teaching staff	2024-2026
13	Ensuring the participation of faculty and students in inter-university and international conferences, as well as in competitions organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan.	Head of the Department, teaching staff	2024-2026
14	Development of scientific schools, integration of faculty members' own research into the teaching process in the methodology of teaching academic disciplines	Head of the Department, teaching staff	2024-2026
15	Effective positioning of scientific research in the intellectual property market	Head of the Department, teaching staff	2024-2026
16	Attraction of foreign scholars with a high h-index	Head of the Department, teaching	2024-2026
17	Development of the department's educational programs	DAW, Head of the Department	2024-2026
18	Regular professional development of faculty and students	HR, Head of the Department, teaching	2024-2026
19	Strengthening of material and technical resources	Directorate, Head of the Department	2024-2026
20	Internal and external academic mobility of faculty and students	Directorate, Head of the Department	2024-2026
21	Expansion of multilingual education	Directorate, Head of the Department	2024-2026
22	Development of MOOCs for academic disciplines and additional training	Directorate, Head of the Department	2024-2026
23	Submission of an application for the grant funding competition for scientific and scientific-technical projects.	Directorate, Head of the Department, teaching staff	2024-2026
24	Ensuring safe and comfortable working, learning, and extracurricular conditions for students.	Directorate, Head of the Department	2024-2026
25	Development of an action plan in cooperation with associations and enterprises in the field of [KiGP —	Directorate, Head of the Department	2024-2026
26	Development of an action plan to expand external and internal mobility of students and faculty members, using modern distance learning technologies.	Head of the Department,	2024-2026

27	Organization of activities to ensure effective employment of graduates. Creation and development of an alumni community.	Head of Department, responsible for employment and career guidance	2024-2026
28	Formation of a fund of educational and scientific literature within the field of study.	Deputy Dean for Research, Department Chair, and Academic Staff	2024-2026
29	Equipping classrooms with new computer hardware, other equipment, and software	Head of the Department, teaching staff	2024-2026

Reviewed at the meeting of the Department of Surveying and Geodesy, protocol №4 from «12» of December 2024

Head of the Department of Surveying and Geodesy



Meyrambek G.

Appendix

The development plan of the EP with the specification of indicators of strategic planning, reflecting the analysis and assessment of risks, the implementation of activities depending on the identified risks, guarantees for achieving the planned results

№	Target indicators	Unit of measurement	Risks				
			2024-2025	2025-2026	Analysis and evaluation	Strategies	Guarantees
1	Percentage of employed graduates in the first year after graduation	%	100	100	Loss of connection with a graduate	Cooperation with stakeholders and business partners. Feedback from graduates.	Contact information with graduates, business partners, and stakeholders. Employment of graduates. Internal audit
2	Number of joint educational programs	Quantity	0	0	Organization analysis The educational process in foreign universities and the assessment of the possibility of creating a SOP.	Collaboration with national and international research centers, institutes, and universities. Involvement of highly qualified faculty in departmental activities. Development and implementation of additional assessment methods to evaluate key indicators of learning effectiveness. Development of an action plan for internal and external mobility of students and faculty.	Risk-oriented analysis (SWOT) of the implemented educational programs. Concluding agreements, approval and launch of educational programs, and admission of students to new programs. Internal audit.

3	Number of educational programs in English	Quantity	0	0	Insufficient English proficiency among faculty	Organization and delivery of English language courses for faculty at the university	Availability of international certificates assessing English language proficiency among faculty and students. Internal audit. Semi-annual and annual departmental reports.
4	Increase in student enrollment in distance education programs	Quantity	-	-	Poor awareness of applicants	To activate career guidance work. To intensify work on external and internal academic mobility of teaching staff using modern distance learning technologies	Digital resources of the university. Internal audit
5	Number of educational programs in English	Quantity	6	8	Insufficient implementation of the results of research and development of teaching staff in the development of educational and teaching materials	To consider at the meeting of the department issues related to the development and implementation of teaching staff's own research in the field of teaching methods and to develop methodological guidelines for teaching academic subjects based on teaching staff's own research.	Teaching staff with high qualifications and extensive experience in scientific and pedagogical activities. F KazNITU 703-06. The annual plan of educational and methodical publications. Internal audit
6	The share of updating the scientific equipment fleet from the total number of scientific equipment, %*	Quantity	18	25	Increased cost of equipment due to inflationary costs	Opening and equipping of the scientific and educational laboratory in Geo-Information Engineering (GIE)	Conducting laboratory sessions in accordance with the curriculum of the educational program

7	Increase in protection documents and copyright certificates	Quantity	15	18	Insufficient patenting of faculty research results	Participation of faculty and students in grant competitions organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan (MSHE RK)	Patenting of scientific developments. Patent Department
8	Number of faculty with sufficient English proficiency for conducting research and educational activities	Quantity	5	7	Low English proficiency among senior faculty members	Organization and delivery of English language courses for senior faculty members at the university	Availability of international English language proficiency certificates among faculty and students
9	Share of degree-holding faculty involved in research and experimental design work, %	Quantity	78	82	The percentage of science funding in Kazakhstan is among the lowest in the world (0.13% of GDP).	Increase faculty participation in grant competitions organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan (MSHE RK).	Highly qualified faculty with substantial research experience..
10	Number of publications in scientific journals of the Republic of Kazakhstan recommended by COCSON, Ministry of Education and Science of	Quantity	10	12	Lack of and insufficient funding for scientific research	Increase faculty and student participation in research and student research activities (R&D and SRA).	Faculty with high qualifications and extensive experience in conducting research. Published scientific articles.
11	Number of ongoing research projects	Quantity	4	5	The percentage of science funding in Kazakhstan is among the lowest in the world (0.13% of GDP).	Increase faculty participation in grant competitions organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan (MSHE RK).	Faculty with high qualifications and extensive experience in conducting research.

12	Number of research outcomes implemented in the educational process	Quantity	4	6	Insufficient funding for scientific research	Development and integration of research results into the core disciplines of the curriculum.	Implementation report of research results in the educational process. Open classes.
13	Number of publications in international journals indexed in Scopus / WoS	Quantity	12	16	Insufficient funding for scientific research	Increase faculty participation in grant competitions organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan (MSHE RK).	Faculty with high qualifications and extensive experience in conducting research.
14	Percentage of faculty holding academic degrees (%)	%	70	75	Insufficient number of grants for the training of master's and doctoral students	Recruitment and employment of new staff who have successfully defended their master's and doctoral theses	Awarding of academic and scientific degrees to graduates. Internal audit.
15	Increase in the proportion of faculty and research staff who have undergone professional development domestically and abroad	%	90	92	Insufficient funding	Participation of faculty in the "Bolashak" competition, organization of professional development courses for faculty. Within the framework of the	Certificate of professional development. Internal audit.

Reviewed at the meeting of the Department of Surveying and Geodesy, protocol №4 from «12» of December 2024

Head of the Department of Surveying and Geodesy



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