



APPROVE

**By the decision of the Academic Council of ALT
dated Mai 30, 2025 (Protocol No. 10)**

**President-Rector
Zharmagambetova M.S.**

EDUCATIONAL PROGRAM

**Name: 7M11378 LOGISTICS (BY INDUSTRY)
(scientific-pedagogical, 2 years)**

Level of training: master's degree

Code and classification of areas of study: 7M113 Transport services

Code and group of educational programs: M152 Logistics (by industries)

Date of registration in the register: 25.08.2025

Registration number: 7M11300071

Almaty, 2025 г.

CONTENT

1. Information about the review, approval and approval of the program, developers, experts and reviewers	3
2. Normative references	4
3. Passport of the educational program	5
4. Competence model of a graduate	6
5. Matrix of correlation of learning outcomes in the educational program with educational disciplines / modules	7
6. Structure of the master's educational program	13
7. Working curriculum for the whole term of training	14
8. Catalog of disciplines of the university component	16
9. Catalog of disciplines of the optional component	19
10. Expert opinion	25
11. Reviewer's conclusion	29
12. Letters of recommendation	31
13. Minutes of review and approval	32
14. Approval sheet	36
15. Changes registration sheet	37

1. INFORMATION ABOUT CONSIDERATION, APPROVAL AND APPROVAL OF THE PROGRAM, DEVELOPERS, EXPERTS AND REVIEWERS

1 DEVELOPED:

JSC ALT University named after Mukhamedzhan Tynyshpaev, Ph.D. in Technical Sciences, Associate Professor

Director of LLC «Cross Line Logistic»

3rd-year student, group TL-22-3r



Kenzhebaseva
Gauhar
Jumashевна

Sapargaliev Ruslan
Ulanovich

Mukhamedgaliev
Nail Rustamovich

2 EXPERTS:

LLP Azurite Logistics, Specialist in Railway Transportation

Department of "Organization of Air Transportation and Logistics", Ph.D. in Technical Sciences, Program Head



Korzhumbayeva
Saida Takhirovna

Garmash Olga
Valeryevna

3 REVIEWER:

Head of the Science and Innovation Department, Ph.D. in Technical Sciences, Associate Professor at the Kazakh-German University



Arimbekova
Perizat
Madenietovna

4 REVIEWED AND RECOMMENDED:

Meeting of the Academic Committee of the Department of Transport Services and Business (protocol No. 1 «28» APRIL 2025)



Musalieva Roza
Dzhililovna

Meeting of the COC UMB Institute of "Logistics and business" (protocol No.9 «05» MAY 2025)



Musaeva Gulmira
Serikovna

Meeting of the Academic Methodological Council (AMC) (protocol No.5 «06» May 2025)



Kodzhabergenova
Asemgul
Kuntuarovna

APPROVED by decision of the Academic Council dated 30.05., 2025, protocol No.10

UPDATED NEW

2. NORMATIVE REFERENCES

The educational program is developed on the basis of the following legal acts and professional standards:

1. Law of the Republic of Kazakhstan “On Education” dated July 27, 2007 No. 319-III (as amended and supplemented as of March 27, 2023).
2. National qualifications framework, approved by the protocol of March 16, 2016 by the Republican Tripartite Commission on Social Partnership and Regulation of Social and Labor Relations.
3. Industry qualifications framework for the field of Education, approved by the Minutes of the meeting of the industry commission of the Ministry of Education and Science of the Republic of Kazakhstan on social partnership and regulation of social and labor relations in the field of education and science dated November 27, 2019 No. 3.
4. State compulsory standard of higher education (Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated February 20, 2023 No. 66).
5. Qualification reference book for positions of managers, specialists and other employees, approved by order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated August 12, 2022 No. 309.
6. Rules for organizing the educational process on credit technology of education in organizations of higher and (or) postgraduate education, approved by Order of the Minister of the Ministry of Education and Science of the Republic of Kazakhstan No. 152 dated April 20, 2011 (with additions and changes dated April 4, 2023 No. 145).
7. Classifier of areas of training for personnel with higher and postgraduate education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No. 569 (with amendments and additions as of June 5, 2020).
8. Algorithm for inclusion and exclusion of educational programs in the Register of educational programs of higher and postgraduate education, approved by Order of the Minister of Education and Science of the Republic of Kazakhstan dated December 4, 2018 No. 665 (with additions and changes as of December 23, 2020 No. 536).
9. RI-ALT-33 Regulations on the procedure for developing an educational program for higher and postgraduate education.
10. Professional Standard Actuary approved by the Board of the Agency of the Republic of Kazakhstan for Regulation and Development of the Financial Market, Order No. 3 dated January 29, 2024
11. Professional Standard Development of Big Data Processing and Storage Systems of the Board of the Agency of the Republic of Kazakhstan for Regulation and Development of the Financial Market, Order No. 222 dated December 5, 2022
12. Professional Standard for Educators (Faculty) of Higher and (or) Postgraduate Education Organizations, Order of the Minister of Science and Higher Education of the Republic of Kazakhstan No. 591 dated November 20, 2023
13. Professional Standard Oil Transportation Management, Appendix 8 to the Order of the Minister of Energy of the Republic of Kazakhstan No. 479 dated December 23, 2024

3. PASSPORT OF THE EDUCATIONAL PROGRAM

№	Field name	Note
1	Registration number	7M11300071
2	Code and classification of the field of education	7M11 Services
3	Code and classification of areas of study	7M113 Transport services
4	Code and group of educational programs	M152 Logistics (by industry)
5	Name of the educational program	7M11378 Logistics (by industry) (scientific-pedagogical, 2 years)
6	EP type	New EP
7	EP purpose	Training specialists in logistics who can effectively manage logistics and transportation processes, taking into account industry-specific features and international experience, and who can optimize and apply digital technologies.
8	ISCED level	7
9	Level on NQF	7
10	Level on SQF	7
11	EP distinctive features	Double diploma EP
	Partner Higher education institution (joint educational program)	-
	Partner higher education institution (two-degree educational program)	-
12	Form of training	Full-time
13	Language of education	Russian, Kazakh, English
14	Volume of the credits	120
15	Awarded Academic Degree	Master of Science 7M11378 Logistics (by industry) (scientific-pedagogical)
16	Availability of an appendix to the license for the direction of training	KZ87LAA00036465
17	EP accreditation existence	Available
	Name of the accreditation body	ND "Independent Agency of Accreditation and Rating"(HAAP/IAAR)
	Validity period of accreditation	28.05.2022-27.05.2027 гг.

4. COMPETENCE MODEL OF A GRADUATE

Objectives of the educational program:

1. Promoting the development of the graduate's ability to:
 - 1) To form comprehensive knowledge and advanced professional competencies in end-to-end supply chain management, including strategic planning, logistics systems design, risk management, and sustainable development.
 - 2) To ensure the mastery of modern analytical methods and technologies for solving complex logistics tasks, including Big Data analysis, business process modeling, digital twin management for supply chains, and working with ERP and TMS systems.
 - 3) To develop skills in research and project activities, including the ability for critical analysis, evaluation, and improvement of logistics processes in specific economic sectors (e.g., retail, manufacturing, transport sector).
 - 4) To build competencies in industry-specific logistics, enabling the graduate to adapt general logistics principles and methods to the specifics of a chosen field (e.g., logistics in mechanical engineering, logistics in the agro-industrial complex, logistics in e-commerce).
 - 5) To teach team management and cross-functional collaboration skills for the effective organization of logistics departments, management of logistics projects, and interaction with other company departments (finance, marketing, production).
 - 6) To cultivate the ability for strategic thinking and innovation, enabling the graduate not only to optimize current operations but also to initiate and implement breakthrough changes in company logistics to enhance its competitiveness.
2. Promoting the formation of graduates' readiness to:
 - 1) solve problems that arise in the process of creating and improving material, financial and information flows from supplier to consumer;
 - 2) organize logistics processes at enterprises, solve problems associated with these processes, make decisions on the rational provision and functioning of logistics systems;
 - 3) develop and implement logistics strategies of the enterprise, strategic plans in the field of logistics;
 - 4) develop logistics chains and schemes that ensure the rational organization of effective promotion of material flows;
 - 5) manage the risks of the enterprise's logistics system;
 - 6) ensure effective logistics activities and thereby contribute to the solution of the important socio-economic task of meeting consumer needs.

Learning outcomes:

- ON1 - Demonstrate theoretical knowledge in the field of organization and management of transport systems, including modern methods of modeling, planning and optimization of transport processes in various modes of transport..
- ON2 - Research logistics and transport supply chains, taking into account the specifics of international, regional and inter-industry transportation using modern information technologies..
- ON3 - Assess the efficiency of the transport infrastructure, taking into account the specifics of international and regional logistics.
- ON4 - Use scientifically based hypotheses and theoretical models, risk management methods, to solve the effective operation of transport enterprises.
- ON5 - To introduce methods for studying important socio-psychological characteristics of the individual and the team, professional, interpersonal and intrapersonal problems by means of management psychology.
- ON6 - Use scientific research methods, critical analysis, and processing of large data sets using modern digital platforms and software systems (GIS, transport simulators, Big Data, AI/ML in transport)

ON7 - Demonstrate work in an intercultural and international professional environment using professional English, and take into account international transport law, standards, and regulations when organizing transportation.

ON8 - Analyze company documents, human resources management systems, production capacities, business processes, and the operating environment for planning and managing the company.

ON9 - Demonstrate leadership skills, communicative and organizational competencies in the work of project teams, relevant to the content of activities in the field of pedagogy, management and management psychology

Atlas of new professions

[Цифровой логист - https://atlasbt.enbek.kz/ru/profession/263](https://atlasbt.enbek.kz/ru/profession/263)

[Проектировщик цифровых двойников - https://atlasbt.enbek.kz/ru/profession/260](https://atlasbt.enbek.kz/ru/profession/260)

[Проектировщик ИТС - https://atlasbt.enbek.kz/ru/profession/258](https://atlasbt.enbek.kz/ru/profession/258)

Area of professional activity:

1. Methodological and Research Activity: Development of theoretical foundations and methodological approaches for modeling logistics systems; conducting applied scientific research in the transformation of supply chain management paradigms; systemic analysis and synthesis of the structural and functional characteristics of logistics processes.

2. Project and Analytical Activity: Architectural design and reengineering of end-to-end logistics processes; development of multi-criteria models for optimizing the resource provision of flow processes; strategic planning for the development of logistics infrastructure.

3. Integration and Coordination Activity: Management of interaction interfaces within the Supply Chain Network; harmonization of the economic interests of logistics system stakeholders; coordination of cross-functional business processes in a globalized environment.

4. Industry Specification: Adaptation of universal logistics concepts to industry-specific technological paradigms; development of industry standards for managing integrated flows; creation of specialized methodologies for assessing the effectiveness of logistics activities.

5. Innovation and Technological Activity: Implementation of Industry 4.0 technologies in supply chain management practices; development and implementation of digital twins for logistics systems; management of the lifecycle of information systems of the Supply Chain Management (SCM) class

Objects of professional activity: complex emergent logistics systems; integrated material, information, and financial flows; strategic and tactical decision-making processes in SCM (Supply Chain Management); methodological framework of logistics research; organizational and economic coordination mechanisms in supply chains.

Types of professional activities:

- research centers developing supply chain management methodologies;
- corporate structures conducting strategic planning of logistics activities;
- consulting companies specializing in the architectural design of logistics systems;
- government bodies formulating policies for the development of logistics infrastructure;
- higher education institutions training personnel in the field of logistics.

Functions of professional activity:

1. Methodological and Analytical Function: decomposition of end-to-end supply chains into elementary processes and operations; identification and classification of material, information, and financial flows; analysis of cause-and-effect relationships in logistics systems; development of conceptual approaches to modeling logistics systems; creation of methodologies for evaluating the effectiveness of logistics solutions.

2. Design and Research Function: development of logistics network topology; design of nodal elements of logistics infrastructure; optimization of distribution center placement; development of transport flow routing algorithms; creation of simulation models for logistics processes.

3. Integration and Coordination Function: coordination of supply chain participants' activities; synchronization of production and logistics processes; organization of information exchange between logistics chain links; establishment of a unified supply chain information space; integration of logistics processes into the corporate management system.

4. Optimization and Analytical Function: collection and processing of statistical data on logistics processes; analysis of total cost of ownership for logistics assets; identification of bottlenecks in logistics chains; optimization of safety stock levels; improvement of transport service schedules; reengineering of warehouse technological processes.

5. Innovation and Technological Function: utilization of global positioning systems for cargo monitoring; implementation of robotic warehouse systems; development and implementation of new logistics business models; adaptation of advanced international supply chain management practices; creation and implementation of predictive analytics systems in logistics.

List of specialist positions:

Chief Logistics Officer (CLO)

Supply Chain Director

Head of Logistics Department

Supply Chain Management Department Manager

Strategic Logistics Manager

Logistics Center of Excellence Lead

Chief Operating Officer (COO)

Digital Logistics Transformation Project Manager.

There are no professional certificates received upon completion of training not provided

Requirements for previous level of education: higher education (bachelor's degree).

During the training process, students undergo various types of professional practice:

- teaching;

- research.

Teaching practice.

The pedagogical practice is aimed at forming comprehensive psychological, pedagogical, methodological, and information technology readiness for scientific and pedagogical activities in higher education institutions. It also focuses on developing students' skills in designing academic courses, independently conducting various forms of classes, and gaining experience in organizational and educational work.

The objectives include developing graduate students' professional competencies through the application of acquired theoretical knowledge; gaining professional skills and proficiencies necessary for work; fostering executive discipline; acquiring the ability to communicate with colleagues; developing the capacity to independently solve tasks relevant to the organization's activities; acquiring and consolidating psychological and pedagogical knowledge in the field of engineering pedagogy; familiarizing with the specifics of a teacher's work in an academy; and cultivating a creative approach to solving pedagogical tasks.

During the practice, graduate students create and implement an educational activity plan with a group of learners, design and deliver a series of lessons reflecting a complete segment of

the learning process based on the content of core disciplines, and demonstrate proficiency in modern teaching technologies and methodologies.

Research practice.

The objective is to form and develop professional knowledge in the field of the chosen educational program, consolidate the acquired theoretical knowledge in the disciplines of the field and specialized disciplines of the master's program, and master the necessary professional competencies in the chosen field of study.

The research practice addresses the following tasks:

- consolidation of the acquired theoretical knowledge;
- development of practical skills in collecting managerial, technical, and economic information, its systematization, and analysis;
- formation and development of professional knowledge in the field of the chosen specialty, reinforcing the theoretical knowledge gained in the disciplines of the master's program;
- the ability to select necessary research methods (modify existing ones, develop new methods) based on the objectives of a specific study (related to the master's thesis topic or tasks assigned by the academic supervisor within the master's program);
- acquisition of professional skills and abilities in accordance with the field and profile of the training;
- integration of the graduate student into the social environment of an organization or government body to acquire socio-personal competencies necessary for work in the professional sphere.

Research work.

The goal is to prepare the master's student both for independent research work, the main result of which is the writing and successful defense of a master's thesis, and for conducting scientific research in general.

The work is performed according to the assignment of the scientific supervisor in accordance with the approved research plan; participation in inter-departmental seminars, theoretical seminars (on the research topic), as well as in the scientific work of the department; presentations at young scientists' conferences held at universities, and participation in scientific conferences; preparation and publication of abstracts, scientific articles; participation in a research project carried out at the department within the framework of research programs, or at a partner organization involved in the master's training; preparation and defense of the master's thesis.

The objectives are to provide skills in performing research work and to develop abilities to:

- conduct bibliographical work using modern information technologies;
- formulate and solve tasks arising in the course of research work;
- select necessary research methods (modify existing ones, develop new methods) based on the tasks of a specific research project related to the master's thesis topic or assignments from the scientific supervisor within the master's program;
- apply modern information technologies in conducting scientific research;
- process and present the obtained results, analyze and present them in the form of completed research developments (research report, conference abstracts, scientific article, course paper, master's thesis);
- provide other skills and abilities necessary for a master's student enrolled in a specific master's program.

Within the framework of the research work, the master's student becomes familiar with innovative technologies and new types of industries; mandatory completion of a scientific internship at research organizations and/or organizations in relevant industries or fields of activity is provided.

Scientific Internship is conducted with the following objectives:

- fulfilling the tasks of the master's thesis;
- familiarization with innovative technologies and new types of production;
- introduction to the latest theoretical, methodological, and technological achievements in domestic and foreign science;
- acquaintance with modern methods of scientific research, processing, and interpretation of experimental data;
- consolidation of theoretical knowledge acquired during the learning process, gaining practical skills, competencies, and professional experience in the field of study, as well as mastering advanced foreign experience.

Final Certification

The purpose of the final certification of the master's student is to assess the learning outcomes and key competencies achieved upon completion of the master's educational program. The final certification of the master's student is conducted in the form of writing and defending a master's thesis.