	NON-COMMERCIAL JOINT-STOCK COMPANY "K. I. SATPAYEV KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY"	
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GRADUATE MODEL

KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K. I. SATPAYEV
(Satbayev University)

Bachelor's degree in the educational program

6B11310 Digital Logistics

(code, name of the educational program)

M.029-04-01.1.01 - 2024

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ПРЕДИСЛОВИЕ

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3 УТВЕРЖДЕНО решением Правления от «11» 09 2024 г. № 12

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introduction

The development компетентностнойof a graduate's competence model becomes an absolute condition for implementing the main directions of the Bologna process and a requirement of the modern labor market. The competence model of a graduate (bachelor's degree) is designed to answer the question of what professional tasks a specialist of a certain rank (position), a particular profile should be able to solve. The formation of a modern model of a university graduate that meets the needs of stakeholders and all interested parties is the main strategic goal ofSatbayev Universityand is provided with the necessary resources for the educational process, including personnel, educational and methodological, information and material and technical support. The University conducts a targeted personnel policy and systematic improvement of the material and technical base of the university to ensure the quality of training of bachelor's degree graduates in demand on the labor market.

The regulatory framework of the Bachelor's degree model for University educational programs is based on the following documents:

– Law of the Republic of Kazakhstan "On Education" No. 319-III of July 27, 2007 (as amended on July 11, 2017)

– State Program of Education Development of the Republic of Kazakhstan for 2011-2020, approved by Decree of the President of the Republic of Kazakhstan No. 1118 dated 07.12.2011.

– State Educational Institution of Higher and Postgraduate Education No. 604 dated 31.10.2018

– "Rules of organization of the educational process on credit technology of training" (No. 152 of 20.04.2011 with amendments and additions No. 563 of 12.10.2018)

– Standard rules for the activities of educational organizations that implement educational programs of higher education. Resolution of the Government of the Republic of Kazakhstan dated April 7, 2017 No.

181. Qualification directory of positions of managers, specialists and other employees, approved by the Order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated May 21, 2012 No. 201-p-m as amended on 17.04.2013.)

1 BRIEF DESCRIPTION OF THE EDUCATIONAL PROGRAM. DEVELOPMENT AND PROSPECTS

Name and definition of OP-6B11310 Digital Logistics

The objects of professional activity of the bachelor of education "**OP- 6B11310 Digital Logistics**" are:

– logistics systems and processes - supply chain management, optimization of warehouse and transport operations;

– information technologies - use of software and systems for logistics management, including ERP systems and transport management systems (TMS).

– data and analytics - collection, processing and analysis of data for making informed management decisions in the field of logistics;

– project management - implementation and management of projects related to improving logistics processes.

– customer relations - interaction with customers, managing expectations and providing high-quality service.

– sustainable development - introduction of environmentally friendly technologies and methods in logistics processes;

– communication networks and switching systems.

Working in the field of Digital Logistics provides an opportunity to improve the efficiency and flexibility of logistics processes, which leads to further business development and increased competitiveness.

Bachelor's training in the direction of OP "6B11310 Digital Logistics" involves the formation of certain professional competencies, including knowledge and skills in the following areas:

1. Information technologies:

- Knowledge of modern information systems and software used in logistics (for example, ERP, WMS, TMS).

- Ability to work with big data and analytical tools to support decision - making.

2. Analytics and data processing:

- Competence in collecting, processing and analyzing data necessary for optimizing logistics processes.

- Ability to apply forecasting and modeling techniques to analyze demand, inventory, and routes.

3. Supply Chain management:

- Knowledge of the principles of supply chain management, including planning and coordination of all stages - from production to delivery to the end user.

- Ability to develop and implement inventory and distribution management strategies.

4. Project management:

- Skills in planning, implementing and controlling logistics projects, including the

introduction of new technologies and processes.

- Knowledge of project performance assessment methods and risk management.

5. Modern logistics concepts:

- Knowledge of concepts such as lean manufacturing, Agile, and Just-in-Time (JIT).
- Ability to apply the principles of sustainable development and ecology in logistics.

6. Communication and relationship management:

- Skills in effective communication with various participants in the supply chain, including suppliers, partners and customers.
- Knowledge of the principles of managing customer experience and interacting with customers through digital channels.

7. Innovations and technological trends:

- Awareness of modern technologies, such as the Internet of Things(IoT), blockchain and unmanned technologies, and their application in logistics.
- Ability to evaluate and implement innovations to improve the efficiency and competitiveness of the company.

These competencies enable digital logistics professionals to effectively solve their tasks, improve processes, and provide a high level of customer service.

Bachelor's degree in OP "6B11310 Digital Logistics"

Its responsibilities also include:

1. Organization and management of logistics processes
   - Planning, coordinating and optimizing the supply, storage, transportation and distribution of goods.
   - Development of logistics strategies and routes.
2. Introduction and use of digital technologies in logistics
   - Application of information systems (ERP, WMS, TMS) for automation of logistics operations.
   - Use of Big Data, IoT, blockchain, and machine learning technologies in logistics chains.
3. Analysis and optimization of logistics processes
   - Data collection, processing and analysis to improve logistics efficiency.
   - Modeling and forecasting using digital tools.
4. Управление цепочками поставок (Supply Chain Management)
   - Control over all stages of the movement of goods from the supplier to the end user.
   - Work with partners, suppliers and clients.
5. Economic and financial analysis of logistics projects
   - Cost estimation, profitability, logistics risk management.
   - Optimize costs and increase profitability.
6. Ensuring a sustainable and eco-friendly logistics approach
   - Implementation of the principles of "green logistics".
   - Consideration of environmental and regulatory requirements.

7. Communication and HR management

- Teamwork, logistics personnel management.
- Support for interaction between different participants in the supply chain.

List of positions of OP "6B11310 Digital Logistics" with a description:

1. Logist (logistics analyst)

Organizes and optimizes logistics processes, analyzes supply data, identifies bottlenecks, and suggests ways to improve efficiency using digital tools.

2.Digital Supply Chain Specialist Chain Specialist)

Manages supply chains using digital platforms, predicts demand, and coordinates interaction with suppliers and consumers based on big data analysis.

3. Warehouse Logistics Coordinator

Responsible for digital warehouse management, implementation of WMS systems, automation of accounting and control of goods movement.

4. Transport LogisticsSpecialist Specialist)

Develops and optimizes delivery routes using TMS systems, analyzes logistics indicators, and tracks the efficiency of transportation in real time.

5.Procurement & LogisticsManagerManager)

Organizes the procurement process, enters into contracts with suppliers, monitors delivery deadlines, and works with digital supply and cost analysis platforms.

6.Logistics IT Specialist IT Specialist)

Implements and maintains information systems in logistics (SAP, Oracle, 1C, etc.), trains employees to work with digital solutions.

7.Logistics Data Analyst)

Works with large amounts of data, visualizes logistics KPIs, develops reports and dashboards, and uses BI tools (Power BI, Tableau).

2. COMPOSITE COMPONENTS IN THE FORMATION OF THE GRADUATE MODEL OF AN EDUCATIONAL PROGRAM.

The key components of forming the Graduate Model of an educational program include information about the goals and objectives of the educational program, objects, types and areas of professional activity, the competence model of a specialist (Appendix 1), including descriptors, the type of competencies in accordance with the educational program, and the results of the educational program.

2.1 Objectives of the Educational program:

Training of highly qualified specialists for innovative and knowledge-intensive sectors of the economy in the field of digital logistics, who possess theoretical and

practical knowledge, skills and abilities necessary for their implementation in professional activities that meet the needs of domestic and global intellectual labor markets.

2.2 Objectives of the Educational program:

– training of competitive specialists, forming professional competencies necessary for effective logistics management in the digital economy;
– training in modern information technologies;
– developing a systematic approach to logistics;
– development of analytical thinking and decision-making skills;
– education of sustainable and ethically responsible professionals;
– involvement of students in project, research and entrepreneurial activities in the field of digital logistics;
– training in effective communication, teamwork, leadership and project management in the context of digital transformation.

2.3 General and professional competencies

General and professional competencies, as learning outcomes, are knowledge, skills and abilities acquired at the end of a discipline or course that reflect the requirements.

General competencies:

– communicative competence;
– digital literacy;
– critical and systematic thinking skills;
– teamwork and leadership;
– ethics and civil liability
– ability for self-development and lifelong learning;
– time management and stress tolerance.

Professional competencies:

– ability to develop and optimize logistics processes;
– skills in applying digital technologies in logistics;
– ability to analyze and model logistics data;
– competencies in the field of transport and warehouse logistics (organization of an effective system of delivery and storage of goods using digital tools);
– abilityto manage digital supply chains;
– skills in risk assessment and ensuring the sustainability of logistics processes;
– knowledge of green and sustainable logistics;
– ability to manage logistics projects and innovations;
– skills in integrating logistics with other business processes.

2.4 Matrix of correlation результатов of learning outcomes of the educational program with the formed competencies

	RO1	RO2	RO3	RO4	RO5	RO6	RO7	RO8	RO9	RO10	RO11	RO12
PC1	V											V
PC 2		V				V	V					
PC 3		V	V	V	V							
PC 4				V	V	V	V					
PC 5				V								
PC 6					V							V
PC 7						V	V					V
PC 8								V	V	V	V	V
PC 9									V	V	V	V

2.5. Personal qualities of a bachelorin the OP "6B11310 Digital Logistics"

Due to the huge growth in digitalization of organizations around the world, there is a high need for specialists in the field of digital logistics. Today, specialists in digital logistics are ready to meet the challenges associated with digitalization and changing business requirements. Graduates of such programs can make a significant contribution to the effectiveness and competitiveness of organizations in the digital transformation era.

Here are some of the skills (personal qualities) that you need to have in order to be a competitive specialist in the field of digital logistics:

- analytical thinking;
- technical competence;
- communication skills;
- project management;
- strategic thinking;
- flexibility and adaptability;
- critical thinking;
- initiative;
- emotional intelligence.
- teamwork skills;
- resistance to stress;
- ethics and social responsibility.

Having these skills and qualities will help the specialist to effectively cope with the challenges in the field of digital logistics and improve the performance of his team and the organization as a whole.

Conclusions

As a result of the labor market analysis, the following conclusions can be drawn about the demand for specialists in the field of digital logistics:

1. Growing digitalization:

- The acceleration of digitalization in various industries creates a significant demand for specialists in the field of digital logistics, who are able to manage and optimize logistics processes using modern technologies.

2. Employers ' requirements:

- Employers are looking for candidates with a combination of technical skills (knowledge of software and analytical tools) and soft skills (sociability, flexibility, responsible attitude to work). Specialists who are able to adapt to rapidly changing conditions are especially appreciated.

3. Innovations and technologies:

"With the increasing adoption of technologies such as IoT, blockchain and automation, there is a growing need for specialists who can not only use these solutions, but also develop innovative approaches to optimizing logistics operations.

4. Competition in the labor market:

- Given the growing number of training programs in the field of digital logistics, competition among graduates is increasing, which requires specialists to constantly update their knowledge and develop personal qualities.

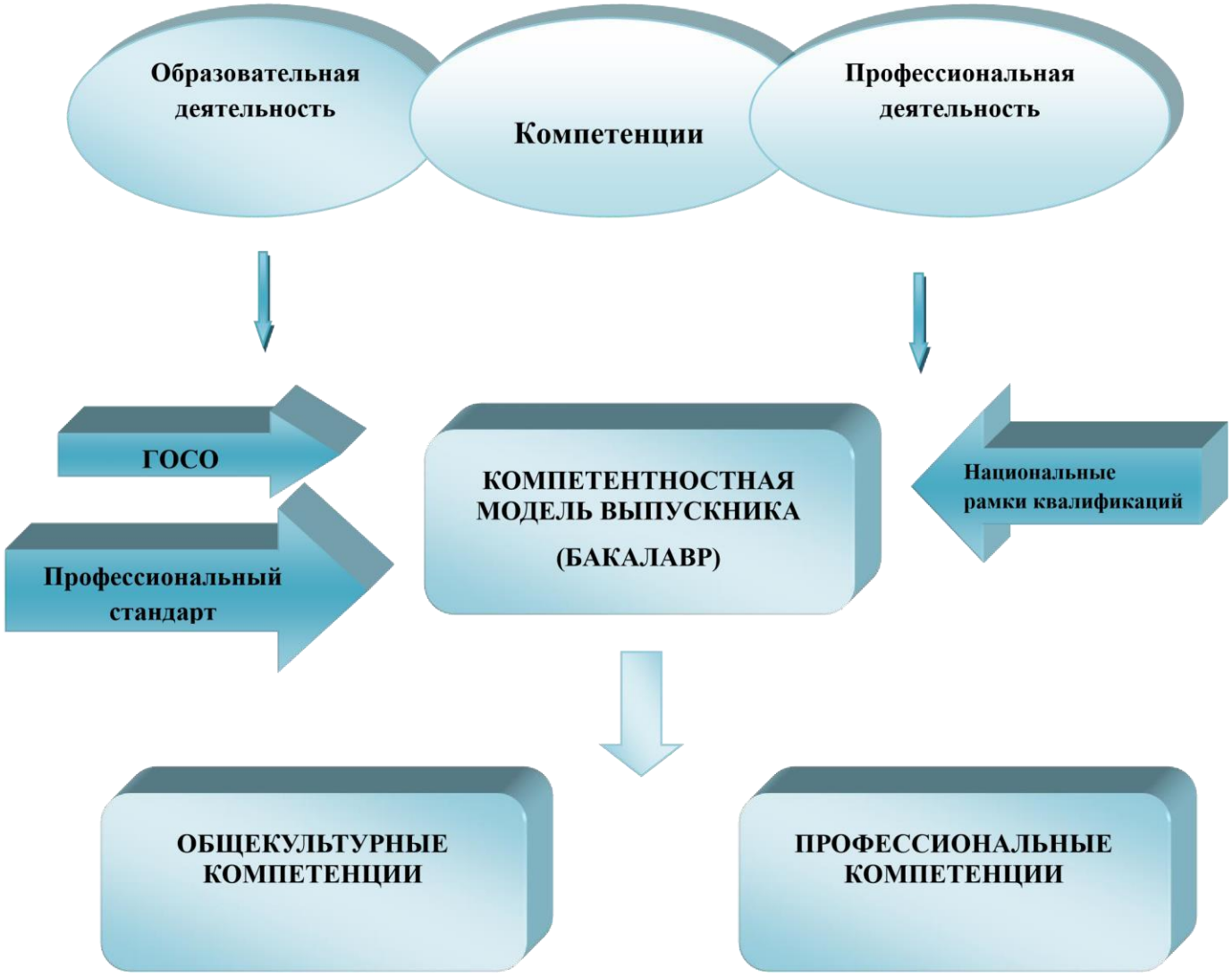
5. Globalization and international activities:

"Increasing international trade and unstable geopolitical conditions require specialists capable of developing and implementing logistics strategies on a global scale.

Thus, the labor market for specialists in the field of digital logistics is actively developing, and those who are ready to invest in their education and development will have good prospects for career growth.

Appendix 1

КомпетентностнаяGraduate competence model (Bachelor of IT Management)



Change Registration Sheet

Sequence number of the change	Section, item of the document	Type of change (replace, cancel, etc.) cancel, add)	Number and date notified s	Change made	
				Date	Surname and initials, signature, position