School of transport engineering and logistics named after M. Tynyshpayev
Department of "Logistics"

EDUCATIONAL PROGRAM

8D11301 Transport services
Code and name of educational program

Code and classification of the field of education: **8D11 Services**
Code and classification of training directions: **8D11 Transport services**
Group of educational programs: **D147 Transport services**
Level based on NQF:**8**
Level based on IQF:**8**
Study period:**3**
Amount of credits:**180**

Almaty 2024

Educational program 8D11301 Transport services
code and name of educational program
was approved at the meeting of K.I. Satbayev KazNRTU Academic Council

Protocol № 3 dated «_27___» _10_2022.

was reviewed and recommended for approval at the meeting of K.I. Satbayev KazNRTU Educational and Methodological Council

Protocol № 2 dated «_21___» _10_2022

Educational program «8D11301 Transport services»
code and name of educational program
was developed by Academic committee based on direction «8D11 Transport services»

Full name	Academic degree/ academic title	Position	Workplace	Signature
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Table of contents

List of abbreviations and designations

EP - educational program
NRK - National Qualification Framework
IRK - Industry Qualification Framework

1. Description of educational program

EP "8D11301 - Transport Services" is aimed at training a specialist who can carry out labour activity in international, state, research, scientific and pedagogical, design and design and technological institutions, as well as in industrial companies, regional transport cluster organisations of the transport sector of the national economy, based on the application of innovative, organisational, managerial and scientific and pedagogical innovations in the field of transport services.

2. Purpose and objectives of educational program

Purpose of EP: Training of highly qualified scientific, pedagogical and managerial personnel with methodological knowledge and professional competencies in making innovative decisions, to analyze and forecast the results of research activities in the field of transport flow and process management

Tasks of EP:

- providing the domestic labor market with highly qualified scientific personnel for the formation of a sustainable national economy with a high level of competitiveness on a global scale;
- the formation of scientists of a new generation capable of systemic and critical thinking in conditions of deep transformation at the worldview level;
- development of an environment that ensures the continuous development of scientific thought for the benefit of society as a whole;
- implementation of research work, organization and implementation of educational activities, taking into account the latest achievements of domestic and world science and practice;
- formation of sustainable partnerships with leading universities of near and far abroad for the purpose of open and mutually beneficial cooperation in the global educational and scientific space.

3. Requirements for evaluating the educational program learning outcomes

4. Passport of educational program

4.1. General information

№	Field name	Comments
1	Code and classification of the field of education	8D11 Services
2	Code and classification of training directions	8D113 Transport services

3	Educational program group	8D147 Transport services
4	Educational program name	8D11301 Transport services
5	Short description of educational program	EP "8D11301 - Transport Services" is aimed at training a specialist who can carry out labour activity in international, state, research, scientific and pedagogical, design and design and technological institutions, as well as in industrial companies, regional transport cluster organisations of the transport sector of the national economy, based on the application of innovative, organisational, managerial and scientific and pedagogical innovations in the field of transport services.
6	Purpose of EP	Training of highly qualified scientific, pedagogical and managerial personnel with methodological knowledge and professional competencies in making innovative decisions, to analyze and forecast the results of research activities in the field of transport flow and process management
7	Type of EP	New EP
8	The level based on NQF	8
9	The level based on IQF	8
10	Distinctive features of EP	no
11	List of competencies of educational program	- to be able to carry out scientific activities in the paradigm of modern trends in the global and national educational space in accordance with the modern national education strategy; - to be able to organize the process of education and upbringing as a dynamic system in accordance with the modern strategy of education; - to be able to critically analyze and evaluate modern scientific achievements, generate new ideas in solving research and practical problems, including in interdisciplinary areas; - to be able to design and carry out comprehensive research, including interdisciplinary ones, based on a holistic systemic scientific outlook using knowledge in the field of transport services and traffic flows; - to be able to implement scientific projects in the work of kazakh and international research teams to solve scientific and scientific and educational problems; - to be able to solve standard tasks of professional activity using information and communication technologies; - to be able to think strategically and creatively, as well as creatively approach solving non-standard problems and situations;
12	Learning outcomes of educational program	1.Solve theoretical and applied research problems of transport science using methods of system analysis and forecasting the activities of transport systems, networks, processes and flows 2. Plan and carry out theoretical and experimental research on the management of transport enterprises, networks and flows using modern information technologies

		3. Be able to develop conceptual and simulation models of the activities of transport and logistics systems and networks, transport flows and logistics centers, conduct experimental research on the developed models, analyze the results of experiments and determine the optimal performance of the model 4. Possess the methodology and methods of designing cargo supply networks, warehouse systems and transport and technological routes 5. Possess knowledge of methodology and basic theoretical provisions, practical methods of conducting scientific research and skills in searching, analysing and processing scientific data and information, intellectual property protection rights at the international level 6. Carry out work on the design, improvement and reorganization of the activities of transport systems and networks, the development of projects and programs for the development of transport enterprises based on reengineering and modern research approaches 7. Perform patent search, study and analyze scientific and technical information, domestic and foreign experience on the topic under study 8. Possess the skills of working with modern innovative and digital technologies in the field of transport logistics and management of transport complexes for the purpose of application in scientific research 9. Demonstrate the skills of writing academic and scientific texts at various levels when performing research projects, develop teaching and methodological materials for academic disciplines, taking into account the integration of education, science and innovation
13	Education form	
14	Period of training	3
15	Amount of credits	180
16	Languages of instruction	kazakh russian
17	Academic degree awarded	PhD
18	Developer(s) and authors	Mukhanova Gulmira Samudinovna

4.2. Relationship between the achievability of the formed learning outcomes based on educational program and academic disciplines

№	Discipline name	Short description of discipline	Amount of credits	Generated learning outcomes (codes)								
				LO1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8	LO 9
Cycle of basic disciplines University component												
1	Academic writing	The course aims to develop academic writing skills of doctoral students in engineering and natural sciences. The course focuses on fundamentals and general principles of academic writing for; -writing effective sentences and paragraphs; -the use of tenses in scientific works, as well as styles and punctuation; - writing an abstract, introduction, results, discussion, conclusion, literature and resources used; - citing in the text; - preventing plagiarism, and making a presentation at the conference.	5									v
2	Research methods	The concept of science and scientific research, methods and methodology of scientific research, methods of collecting and processing scientific data, principles of organizing scientific research, methodological features of modern science, ways of developing science and scientific research, the role of technical sciences, informatics and engineering research in modern science, the structure of technical sciences, the use of general scientific, philosophical and special methods scientific research in theory and practice.	5	v				v		v		v
Cycle of basic disciplines Component of choice												
3	Simulation modelling of transport and	Objectives of the course: the acquisition of knowledge by PhD students about the theory	5			v						

	logistics systems	of simulation modelling and teaching innovative skills: generating options, planning experiments, comparing options, evaluating options, choosing options. Discipline content: building a conceptual model of the transport system. Simulation studies in the field of transport and industrial logistics: - problem analysis; - data collection; - development of conceptual and simulation models; - planning, execution and evaluation of the experiment; - interpretation and presentation of results.										
4	Intellectual property and the global market	Purpose: the goal is to train specialists in the field of intellectual property law who can analyze and predict trends in its development in the global market, develop strategies for the protection and commercialization of intellectual property. Contents: global aspects of intellectual property and its role in international trade and economics, analysis of international agreements and conventions, IP management strategies, cases of protection and violation of intellectual property rights in various jurisdictions.	5					v				
5	Digital technologies of transport and logistics services	The goal of the discipline is to master the skills of applying modern information systems and technologies to support transport and logistics systems, logistics processes and supply chain management. Content: information systems and innovative technologies in the management of transport systems and flows. Satellite communication and navigation systems, tracking and tracing of cargo and transport flows.	5		v						v	

		RFID systems. BigData, Blockchain and Internet Of Things technologies										
Cycle of profile disciplines Component of choice												
6	Global trends in supply chain management and research	The main trends in the development of the ideology of supply chain management. Key factors and drivers that determine the development of the DRM concept. Methodological aspects of digital transformation of supply chains. Digital technologies in their supply chains. The best practice of leading companies in the field of logistics and SRM. Issues of segmentation of supply chains, customer-oriented business, increasing the sustainability, dynamism and transparency of supply chains.	5	v				v			v	
7	Methodology for the design of transport and logistics systems and processes	The aim of the course is the formation of knowledge and skills for research, design and modeling of transport processes and systems. Course content: Methodological foundations for the design of transport processes and systems. Information support for design. Modeling of transport processes. Methodology and methods for designing cargo supply networks, warehouse systems, transport facilities, transport and technological routes; planning, execution and controlling of resource flows (goods, materials, information, etc.) in complex transport and logistics systems and supply chains; problems of value added management in the production of transport services for the end user; problems of logistic coordination in transport systems. Designing urban /	5		v	v	v					

		regional road freight transport routes.										
8	Reengineering in transport logistics	The purpose of the course is to acquire skills in modernizing the business processes of transport systems. Course content: Theoretical prerequisites for optimizing the transport process in transport systems. Reengineering methodology. Optimization of capacities and indicators of permanent devices of transport systems and their capacity. Improvement of the operational management system for the interaction of various types of transport. Spheres of optimal interaction of various types of transport and the development of their competitiveness.	5						v			
9	System analysis of transport systems	Purpose: to form a complex of theoretical knowledge of the basics of system analysis and forecasting of traffic flows and systems. Contents: Systems analysis as a methodology of general systems theory. Basic principles, tasks and functions of system analysis and their application in the study of transport systems. Models and methods of system analysis and forecasting of traffic flows; time series and forecasting methods in the research of transport systems.	5	v								

5. Curriculum of educational program

NJSC "KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K.I. SATPAEV"

SATBAYEV UNIVERSITY

APPROVED
Chairman of the Management Board-Rector of Kazntu named after K.Satpayev
M.M. Begentayev

CURRICULUM
of Educational Program on enrollment for 2023-2024 academic year

Educational program 8D11301 - "Transport services"
Group of Educational programs D147 - "Transport services"

Form of study: full-time | Duration of study: 3 year | Academic degree: Doctor of Philosophy (PhD)

Discipline code	Name of disciplines	Cycle	Total amount in credits	Total hours	Classroom amount lec/lab/pr	SIS (including TSIS) in hours	Form of control	Allocation of face-to-face training based on courses and semesters					
								1 course		2 course			
								1 semester	2 semester	3 semester	4 semester	5 semester	6 semester
CYCLE OF BASIC DISCIPLINES (BD)													
M-1. Module of basic training (university component)													
MET322	Methods of scientific research	BD UC	5	150	2/0/1	105	E	5					
LNG305	Academic writing	BD UC	5	150	0/0/3	105	E	5					
component of choice													
TRA301	Digital technologies of transport and logistics services	BD CCH	5	150	2/1/0	105	Э	5					
TRA303	Simulation modeling of transport and logistics systems												
MNG349	Intellectual property and the global market				2/0/1								
CYCLE OF PROFILE DISCIPLINES (PD)													
M-2. Module of professional activity (component of choice)													
TRA302	Reengineering in transport logistics	PD CCH	5	150	2/0/1	105	Э	5					
TRA304	Methodology for the design of transport and logistics systems and processes												
TRA300	System analysis of transport systems	PD CCH	5	150	2/0/1	105	Э	5					
LOG300	Global trends in supply chain management and research												
M-3. Practice-oriented module													
AAP350	Pedagogical practice	BD UC	10						10				
AAP355	Research practice	PD UC	10							10			
M-4. Experimental research module													
AAP336	Research work of the doctoral student, including internships and doctoral dissertation	RWDS UC	5					5					
AAP347	Research work of the doctoral student, including internships and doctoral dissertation	RWDS UC	40						20	20			
AAP356	Research work of the doctoral student, including internships and doctoral dissertation	RWDS UC	60								30	30	
AAP348	Research work of the doctoral student, including internships and doctoral dissertation	RWDS UC	18										18
M-5. Module of final attestation													
ECA301	Writing and defending a doctoral dissertation	FA	12										12
	Total based on UNIVERSITY:							30	30	30	30	30	30
								60		60		60	

Number of credits for the entire period of study					
Cycle code	Cycles of disciplines	Credits			
			university component (UC)	component of choice (CCH)	Total
BD	Cycle of basic disciplines		20	5	25
PD	Cycle of professional disciplines		10	10	20
	Total for theoretical training:	*0*	*30*	*15*	*45*
	RWDS				*123*
FA	Final attestation	12			12
	TOTAL:	12	30	15	180

Decision of the Academic Council of Kazntu named after K.Satpayev. Protocol № 12 - 22 04 202 4

Decision of the Educational and Methodological Council of Kazntu named after K.Satpayev. Protocol № 6 - 19 04 202 4

Decision of the Academic Council of the School of transport engineering and logistics named after M. Tynyshpayev ________. Protocol № 4 or « 19 » 03 20 24

Vice-Rector for Academic Affairs — R.K. Uskenbayeva

Head of School of transport engineering and logistics named after M. Tynyshpayev — S.S. Abdullayev

Head of educational program School of transport engineering and logistics named — G.S. Mukhanova

Specialty Council representative from — S.M. Madetbekov