Institute of Project Management
Department of Logistics

EDUCATIONAL PROGRAM

7M11301 Transport services

Code and name of educational program

Code and classification of the field of education: 7M11Services
Code and classification of training directions: 7M113 Transport services
Group of educational programs: M151 Transport services
Level based on NQF: 7
Level based on IQF: 7
Study period: 2
Amount of credits: 120

Almaty 2023

Educational program 7M11301 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 .

NCJS «KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY
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Educational program 7M11301 Transport services
code and name of educational program

was developed by Academic committee based on direction «7M113 Transport services »

Full name	Academic degree/ academic title	Position	Workplace	Signature
Chairperson of Academic Committee:				
Mukhanova Gulmira Samudinovna	Candidate of Technical Sciences, Associate Professor	Head of the Department	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77019937718	
Teaching staff:				
Bekzhanova Saule Ertayevna	Doctor of Technical Sciences, Professor	Professor	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77017994770	
Saltanat Bolatovna	Candidate of Economic Sciences	Assistant Professor	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77057696077	
Tymbaeva Zhazira Muratbekovna	Candidate of Economic Sciences	Associate Professor	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77017867603	
Tyshkanbayeva Mansia Bukarina	Candidate of Physical and Mathematical Sciences, Associate Professor	Associate Professor	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77472870472	
Employers:				
Tulebaev Madiyar		Director	TOO «ZhebeLogistics»,	
Medetbekov Serik Muratbekovich		Associate Director	TOO «Туркестан - INVEST»	
Students				
Kozhataev Sauran		2nd year doctoral	"Kazakh National Research Technical	

F KazNRTU 703-05 Educational program

F KazNRTU 703-05 Educational program

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		student	University named after K.I.Satpayev", mobile phone: +77788929235	
Mailybayeva Aina		4th year student	"Kazakh National Research Technical University named after K.I.Satpayev", Mobile phone: +77013821226	
Narynbay Rauan Zhandauletuly		Master's student 2nd year	"Kazakh National Research Technical University named after K.I.Satpayev", mobile phone: +77052010290	

F KazNRTU 703-05 Educational program

Table of contents

List of abbreviations and designations

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

1. Description of educational program

EP «7M11301-Transport services» was developed in accordance with the standards of postgraduate education. Upon completion of the program, undergraduates will be in-demand specialists in the transport services market.

2. Purpose and objectives of educational program

Purpose of EP: Training of qualified scientific and pedagogical personnel in the field of transport services, capable of solving scientific and practical problems in professional activities and making managerial decisions using innovative technologies.

Tasks of EP:

- organization of the educational process corresponding to the international standards of postgraduate education for the educational process;
- training of scientific personnel with the competencies of a competitive specialist in the field of transport services;
- creating conditions for academic mobility of undergraduates;
- providing students with access to the advanced achievements of scientific and practical thought in the field of transport services;
- formation of modern specialists capable of strategic forecasting of transport processes, both national and international scale.

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	7M11Services
2	Code and classification of training directions	7M113 Transport services
3	Educational program group	M151 Transport servis
4	Educational program name	7M11301Transport services
5	Short description of educational program	EP «7M11301-Transport services» was developed in accordance with the standards of postgraduate education. Upon completion of the program, undergraduates will be in-demand

		specialists in the transport services market.
6	Purpose of EP	Training of qualified scientific and pedagogical personnel in the field of transport services, capable of solving scientific and practical problems in professional activities and making managerial decisions using innovative technologies.
7	Type of EP	New EP
8	The level based on NQF	7
9	The level based on IQF	7
10	Distinctive features of EP	No
11	List of competencies of educational program	- the ability to identify patterns and trends in the development of scientific thought based on the synthesis of disciplinary and interdisciplinary areas for conducting complex research; - the ability to apply scientific approaches, knowledge and ideas in the field of transport systems based on the use of research results, modern methodology, trends in their development; - have the skills to develop functional systems for the implementation of investment projects in transport systems; - the ability to apply new tools to ensure the transparency of supply chains and analytical solutions and technologies to facilitate the automation of processes and improve the operational efficiency of industrial companies; - the ability to systematically and differentially use the tools of economic, mathematical, statistical and other methods to solve various theoretical and practical problems in the design.
12	Learning outcomes of educational program	1. Applies techniques in the field of psychology and pedagogy, in scientific and pedagogical and research activities, to have a philosophical worldview. 2.Uses methods of mathematical and simulation modeling, technology of business games for making optimal decisions in studies of transport and logistics processes. 3. Applies research methods to conduct research in their professional activities, identify problems in the field of sustainable logistics, transport and transport services management.

		4. Applies new innovative technologies in the management of transport processes and services in order to ensure the safety of the provision of transport services, increase the efficiency of use of material, technical, financial and information resources. 5. Solves the problems of designing transport networks and transport and logistics infrastructure using information technology. 6. Conducts research on transport and logistics facilities and processes, evaluates the results of analysis and reasonably make sscientific decisions. 7. Develops individual stages of technological processes to ensure the safety of personnel, the transportation process, the operation of vehicles and the movement of material flow in the supply chain. 8. Applies fundamental and applied knowledge in a practical environment in the study of transport, transport services and logistics functions 9. Develops complex tasks in the field of transport infrastructure, supply chain, interaction of different modes of transport, selects and evaluates the necessary information to solve the tasks set. 10. Develops complex tasks in the field of transport infrastructure, supply chain, interaction of different modes of transport, selects and evaluates the necessary information to solve the tasks set. 11. Develops complex tasks in the field of transport infrastructure, supply chain, interaction of different modes of transport, selects and evaluates the necessary information to solve the tasks set. 12. Develops complex tasks in the field of transport infrastructure, supply chain, interaction of different modes of transport, selects and evaluates the necessary information to solve the tasks set. 13. Finds relevant information in English to identify and analyze problems, conduct scientific research in the

		scientific field
13	Education form	full-time
14	Period of training	2
15	Amount of credits	120
16	Languages of instruction	kazakh russian
17	Academic degree awarded	Master of Science in the field of services under OP «7M11301-Transport services»
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)												
				PO1	PO 2	PO3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PO1 3
Cycle of basic education disciplines University component																
1	English language (professional)	The course is designed for undergraduates of technical specialties to improve and develop foreign language communication skills in professional and academic fields. The course introduces students to the general principles of professional and academic intercultural oral and written communication using modern pedagogical technologies.	5													v
2	History and philosophy of science	The subject of philosophy of science, dynamics of science, specifics of science, science and pre-science, antiquity and the formation of theoretical science, the main stages of the historical development of science, features of classical science, non-classical and post-non-classical science, philosophy of mathematics, physics, engineering and	3	v												

		technology, specifics of engineering sciences, ethics of science, social and moral responsibility of a scientist and engineer.															
3	Higher school pedagogy	Undergraduates will master the methodological and theoretical foundations of higher school pedagogy, plan and organize the processes of teaching and upbringing, master the communicative technologies of subject-subject interaction between a teacher and a master in the educational process of a university.	3	**v**													
4	Psychology of management	The discipline studies the modern role and content of psychological aspects in managerial activity. The improvement of the psychological literacy of the student in the process of implementing professional activities is considered. Self-improvement in the field of psychology and studying the composition and structure of management activities, both at the local level and abroad. The psychological feature of modern managers is considered.		**v**													

Cycle of basic disciplines Component of choice																	
5	Automated systems for solving logistics problems	The purpose of the discipline is the acquisition of skills for solving logistics problems by undergraduates using automated systems.. Specialized logistics company management software. Features of the implementation of the KANBAN system. MySAP Buisness Suite e-business platform. Integrated SAP NetWeaver integration platform. Logistics software based on the SAP platform. Automated SAP platform technologies for Supply Chain Management (SCM) and Customer Ralationship Management (CRM).	5			**v**	**v**										
6	Analysis and forecasting of traffic flows	Purpose: to form a complex of theoretical knowledge of the basics of system analysis and forecasting of traffic flows and systems. After completing the course, the Master student should demonstrate the ability to analyse and forecast traffic flows. The Master student should know quantitative and qualitative methods of forecasting traffic flows; be	5		**v**	**v**											

		able to: - determine the indicators of transport systems for analysis; - apply the methods of analysis in practice; - apply methods of transport flows forecasting. Contents: Main characteristics of transport systems. Characteristics of freight flows. Existing approaches to traffic flow analysis. Models and methods of analysis and forecasting of traffic flows; time series and forecasting methods in research.														
7	Information support systems for design, manufacture and maintenance of ground transport and technological machines	Existing information systems for the design, production and operation of machinery and equipment. Information model of the life cycle of mechanical engineering products. Information technology CALS. ISO standards in the field of information technology. Implementation of CALS information support system products in the production process of designing and manufacturing machines. Prospects for the development of information technologies in the systems of production and operation of transport and technological	5				**v**	**v**							**v**	

		machines.														
8	Research methodology	The course is aimed at studying the laws, principles, concepts, terminology, content, specific features of the organization and management of scientific research using modern methods of scientometry. In the course of training, undergraduates will be able to choose methods of planning and organizing scientific research. They will study and master the mechanism of scientific search, analysis, conducting experiments, organizing surveys, compiling questionnaires, standards and regulations for the registration of research results. Gain skills in the preparation and execution of documents for scientific projects, reports, publications for seminars and conferences.	5		v											
9	Modern problems of transport science, engineering and technology	The course provides for the study of the history and methodology of transport science, basic research methods of transport systems, research methods in the field of transport science, engineering and technology.	5		v								v	v		

		Modern trends and trends in the study of science and technology are being studied, and they will focus on specific problems of transport science. Methods of solving optimization problems of transport systems management, application of mathematical statistics in optimization of transport processes, modeling of transportation and operational processes in transport are considered. Methods of planning and organization of scientific research are given.														
10	Theory of transport processes and systems	The discipline will be studied. The classification of traffic. Features of the transport sphere of material production. Transport processes. Measuring instruments of transportation process. transport process cycle. The main technical and operational parameters of the transport process. Functional motor systems delivery. Modeling of the transport network. The concept of the graph. Model transport network.	5		v	v					v					
Cycle of profile disciplines University component																

11	Methods of inspection of transport processes	The purpose of the discipline is the formation of undergraduate skills in conducting research on transport processes in production and in the field of cargo transportation. After completing the course, the undergraduate should know the technology of transport processes in production and in the field of cargo and passenger transportation; have the skills to conduct a survey of transport processes in order to make decisions on their improvement. The content of the discipline. Transport production. Transportation processes and systems. The technology of the cargo transport process. Transportation hubs. Passenger transport systems. The study of transport systems. Design of transport processes. Coordination of work modes.	5		v				v		v				v	
12	Logistic tasks modeling	The aim of the discipline is to form a theoretical basis of master students' knowledge of models and methods of mathematical and simulation modelling. After completing	5			v										

		the course a Master student should know the stages of modelling, mathematical methods of solving problems in logistics, the basics of conceptual and simulation modelling; be able to build mathematical models of logistics problems, determine the methods of their solutions and find optimal solutions. Content of the discipline: Mathematical models and methods in logistics processes. Economic-mathematical models and methods of solving problems in the management of production, transport and logistics processes, processes of storage, distribution of resources and product sales. Theoretical foundations and methods of solving applied problems in logistics and organization of transport services. Stages of simulation modelling. Building a conceptual model.														
13	Modern transportation technologies in supply chains	Information means of transport control. Extensive and intensive development in the field of logistics. Indicators for assessing the	5				v						v	v	v	

		technological resource of a country or enterprise. Investing in innovation. Technique and technology of logistics. Characteristics and basic directions of the development of science. Application of scientific achievements in logistics - nanotechnology, control systems with artificial intelligence, new means of communication and energy transfer. Prediction of the development of logistics infrastructure.														
14	Strategic logistics cost management	The purpose of the discipline is to study the content of logistics costs and ways to reduce them to increase the company's competitiveness. After completing the course, the undergraduate must know the content of logistics costs and their classification; be able to keep track of logistics costs; have the skills to make decisions to reduce logistics costs. Discipline content: Information on the qualitative and quantitative content of logistics costs. Types of classification of logistics costs. Division of logistics	5				v					v				

		costs according to the areas of activity of the enterprise. Complete and abbreviated cost accounting. Cost accounting in space and time. The reliability of the information base. Planning, accounting and opportunities to reduce logistics costs. Strategic management of logistics costs as a means of increasing the competitiveness of an enterprise. Accounting for logistics costs by function: a) management, b) transportation, c) maintenance and maintenance of stocks at procurement and storage, production and sales and distribution stages. Forecast of sales volume using mathematical and statistical methods, taking into account the inflation factor. Construction of a regression-correlation model of the dependence of sales volume and costs of management, transportation, maintenance and maintenance of stocks. Determination of the total reduced costs and the minimum value of the total costs.														

Cycle of profile disciplines Component of choice																	
15	Innovative Technology in Logistics	The purpose of the discipline is to study modern technologies in logistics for use in professional activities. Logistics is a methodological basis for the integration of information in supply chain management processes. The digital economy is the new global paradigm for managing economic processes. Changes in logistics under the influence of the digital economy. Digital Logistics. Concepts, terms and definitions of digital logistics. Logistics and building a unified information environment in supply chain management processes. Regulatory aspects of digital logistics. Paperless electronic document management in logistics. Digital transformation, reengineering and logistics. “Cross-cutting” technologies of digital logistics: the use of distributed registry technologies (“blockchain”) in the management of supply chain logistics; BigDat technologies in logistics; global navigation,	5				**v**										

		satellite communications and on-board supply control systems in logistics; bar and radio frequency (RFID) identification; “Internet of things” in logistics; artificial intelligence, robotics, unmanned vehicles, intelligent information control systems in logistics. Virtual logistics operator and cloud information technology.															
16	Research and testing of transport and transport-technological machines	Experimental determination of the structural and operational properties of machines. Laboratory, factory, operational, running, road tests. Acceptance, control, research tests of machines. Testing equipment and stands. Methodology for testing machines. Determination of dynamic and traction properties, durability and strength of machines and their elements. Certification tests of machines. Tests of power plants and drives of machines and machines for reliability.	5						v				v	v		
17	Research methodology for the market of transport and logistics services	The purpose of the discipline is the formation of undergraduate skills in conducting research on the market of logistics services	5		v				v		v					

		based on knowledge of methodological foundations. After completing the course, the undergraduate must know the principles, stages and methodology of the study; be able to apply the methodological foundations of the study of the market of transport and logistics services in professional activities. The content of the discipline: the current state of the world market of transport and logistics services. Problems and existing solutions. Technique and methods of research of the market of transport services. Improving the market of transport and logistics services in the Republic of Kazakhstan. Value Added Services.														
18	Supply Chain Modeling	The purpose of the discipline is the formation of undergraduate skills in building conceptual and simulation models of logistics processes and supply chains. After completing the course, the undergraduate should know the stages of building conceptual and simulation models, simulation modeling	5			v					v					

		methods; possess the skills of working in the environment of the AnyLogic simulation package, building simulation models, conducting experiments, processing the results of experiments, making optimal decisions. The content of the discipline: basic concepts and principles of modeling production and logistics processes. The basic concepts of simulation and the construction of a conceptual model. The method of discrete event (process) modeling. Software for modeling in production and logistics. Building simulation models in Anylogic simulation environment. Conducting experiments. Processing of the results of the experiment.														
19	Fundamentals of technical systems performance	Features of the management of technical systems. Fundamentals of industrial operation and maintenance of technical systems of the industry. Reasons for reducing the operability of machines in operation. The effect of lubricants on machine performance. Fatigue of materials of machine	5								v		v	v		

		elements. Corrosion damage to machine parts. The program for ensuring the operability of technical systems. Fundamentals of the concept of "life cycle of technical systems." Performance assessment of machine elements. The performance of the main elements of technical systems.															
20	Design and management of logistics infrastructure	The content of the discipline: Concepts of the logistics infrastructure, warehousing, storage systems. The basic principles and methods of designing and managing a logistics infrastructure. Modern concepts of an integrated approach to the formation and management of the logistics infrastructure at all levels of decision making. Resource optimization related to the design and operation of the logistics infrastructure. Information management system for the management of logistics infrastructure. Cost structure for the maintenance of logistics infrastructure	5					v							v	
21	Automation systems for road transport	The course examines the theoretical principles and categories of system analysis,	5				v						v	v		

		general theory of systems, theories of information, methods of system analysis for subsequent use in making technical and managerial decisions used in the creation and operation of information technologies, automated control systems for the schedule of completed traffic, the functional composition of tasks and automated workplaces of technical personnel of a motor transport company, automated systems management, business processes of technological center enterprises, business processes of support in corporate transport service centers.														
22	The current state of interaction of all types of transport	The purpose of the discipline is the formation of undergraduate skills in organizing the effective interaction of various types of transport based on the knowledge of their technical and operational characteristics. After completing the course, the undergraduate should know the methods and modern technologies of transportation	5				**v**					**v**				

		by various modes of transport; possess the skills of organizing the transportation process with the participation of various modes of transport; be able to carry out economic calculations of the assessment of the transportation process. Content of the discipline: Functioning of main modes of transport. Interaction of modes of transport in the transportation process, at the points of cargo transshipment, transfer of passengers and in mixed direct transportation. An integrated approach to the organization of transportation on all modes of transport. The choice of the optimal transportation option, methods of interaction between modes of transport. Technical, technological, legal, economic and information spheres of interaction between different modes of transport. Modern technologies of transportation on various modes of transport. Economic models in the calculation of the assessment of optimal options for the transportation of goods and the infrastructure of														

		transshipment points.														
23	Current trends in traffic safety in transport processes	The essence of the problem of ensuring traffic safety in transport processes. Organization and traffic safety of the transport process. Factors of influence on traffic safety. Methods of ensuring traffic safety. Active and passive vehicle safety. Transport and operational characteristics of roads. Description of the road network of the Republic of Kazakhstan, countries of near and far abroad. Methods for ensuring environmental friendliness of traffic safety schemes in transport processes. Methods of engineering and theoretical calculations to ensure traffic safety. Modern technologies for optimizing control processes in the transport sector. Characteristics of transport systems for safety control. Methods of modeling, calculation and experimental studies of effective traffic management schemes in transport processes.	5				v					v				
24	Technical means of the transport system	The discipline systematizes the learner's knowledge about	5							v			v	v		

		the object of management focused on road transport. The main practical aspects of transport systems studied in the modules: freight and passenger transportation, cargo science, freight forwarding services, general course of transport, etc., contribute to the formation of students' holistic understanding of the work of transport as a system of the transport network and the transport process. General information from the theory of systems is the basis of the study of the discipline.														
25	Technological processes of maintenance and repair of transport and transport-technological machines and equipment	The course is aimed at studying the basics of ensuring efficient operation of transport and transport-technological machines and equipment; rules of operation and operational documentation; issues of rationing and storage of operational materials; planning and organization of maintenance and repair; fundamentals of technical diagnostics, as well as design and reconstruction of the production base. The features	5							v			v	v		

		of the operation of lifting and power equipment, the basics of automation of production processes and new forms of machine maintenance are considered.														
26	Technological equipment and production and technical infrastructure of enterprises	Technological equipment - an integral part of the PTB of automobile transport enterprises. Lifting and disassembling equipment. Control and diagnostic equipment. Washing and lubricating equipment. Equipment for body repair, paint work. Equipment for maintenance and repair of wheels. The choice of the acquisition and installation of technological equipment. Technical operation of technological equipment. Repair of technological equipment. Metrological and environmental support of process equipment. Trends in the improvement of technological equipment designs.	5										v	v		
27	Sustainable logistics and transport	The purpose of the discipline is to study the direction of research on the creation of a sustainable logistics system and supply chain. After	5		v				v			v				

		completing the course, the undergraduate should know the basic concepts and principles of a sustainable logistics system; be able to identify problems in the functioning of logistics systems in the field of "Green Logistics"; have the skills to build sustainable logistics systems and supply chains. Discipline content: Applied aspects of sustainable logistics, supply chain and transport. Analysis of the impact of environmental decisions on logistics systems and transport. Sustainable logistics, closed supply chains, reverse logistics. Sustainable Supply Chain Strategy.															
Practice-oriented module																	
28	Pedagogical practice	Goals of pedagogical practice: - organization of the pedagogical process based on the developed creative approaches and methods of pedagogical mastery, mastering the skills of performing pedagogical functions in the educational process; - mastering the skills	6														

		and abilities of applying scientific research material and methodology of science in pedagogical activity; - formation of independence of undergraduates in rationalization, organization and planning of their pedagogical activity. Pedagogical practice involves mastering the following professional and pedagogical skills: - to orient oneself in the theoretical foundations of the science of the taught subject; - to independently design, implement, evaluate and adjust the educational process; - to use modern innovations in the process of vocational training.															
29	Research practice	The purpose of the practice is to increase the level of training of masters by mastering in the learning process methods, techniques and skills of performing research, developing their creative abilities, independence, initiative in studies and future activities. Tasks of research practice: formation of undergraduates' understanding of the current	4														

		state of transport services; conducting career guidance work among undergraduates, allowing them to choose the direction and topic of research; discussion of scientific articles, monographs, research results, regulatory documents on the profile of the master's program; teaching undergraduates the skills of academic work, including the preparation and conduct of research, writing scientific papers; developing undergraduates' skills of public speaking, scientific discussions and presentation of research results.														

5. Curriculum of educational program

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K.I.SATBAYEV

SATBAYEV UNIVERSITY

APPROVED
Chairman of the Management Board-
Rector of the University named after K.Satpayev
M.M. Begentaev
"09" 04 2022 y.

CURRICULUM
of Educational Program on enrollment for 2022-2023 academic year

Educational program 7M11301 - "Transport services"
Group of Educational programs M151 - Transport services

Form of study: full-time | Duration of study: 2 year | Academic degree: master of Science in Services

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
CYCLE OF BASIC DISCIPLINES (BD)											
M-1. Module of basic training (university component)											
LNG210	English language (professional)	BD UC	5	150	0/0/3	105	E	5			
HUM214	Psychology of management	BD UC	3	90	1/0/1	60	E		3		
HUM212	History and philosophy of science	BD UC	3	90	1/0/1	60	E		3		
HUM213	Higher school pedagogy	BD UC	3	90	1/0/1	60	E	3			
component of choice											
TRA206	Automated systems for solving logistics problems	BD CCH	5	150	2/1/0	105	E	5			
TRA239	Theory of transport processes and systems			150	2/0/1	105	E				
LOG201	Research methodology	BD CCH	5	150	2/0/1	105	E	5			
TRA203	Modern problems of transport science, engineering and technology			150	2/0/1	105	E				
LOG200	Automated systems for solving logistics problems	BD CCH	5	150	2/1/0	105	E			5	
TRA205	Information support systems for design, manufacture and maintenance of ground transport and technological machines			150	2/1/0	105	E				
CYCLE OF PROFILE DISCIPLINES (PD)											
M-2. Module of professional activity (university component, component of choice)											
TRA208	Methods of inspection of transport processes	PD UC	5	150	2/0/1	105	E	5			
TRA214	Modern transportation technologies in supply chains	PD UC	5	150	1/0/1	105	E	5			
LOG204	Logistic tasks modeling	PD UC	5	150	2/1/0	105	E		5		
TRA243	Strategic logistics cost management	PD UC	5	150	2/0/1	105	E			5	
component of choice											
LOG206	Research methodology for the market of transport and logistics services	PD CCH	5	150	2/0/1	105	E		5		
TRA228	Innovative Technology in Logistics				2/1/0	105	E				
TRA217	Technical means of the transport system				2/0/1	105	E				
TRA222	Sustainable logistics and transport	PD CCH	5	150	2/0/1	105	E			5	
TRA210	Technological equipment and production and technical infrastructure of enterprises			150	2/0/1	105	E				
TRA446	The current state of interaction of all types of transport	PD CCH	5	150	2/0/1	105	E		5		
TRA445	Current trends in traffic safety in transport processes				2/0/1	105	E				
TRA273	Technological processes of maintenance and repair of transport and transport-technological machines and equipment				2/1/0	105	E				
TRA229	Design and management of logistics infrastructure	PD CCH	5	150	2/0/1	105	E			5	
TRA213	Fundamentals of technical systems performance			150	1/0/1	105	E				
TRA207	Automation systems for road transport	PD CCH	5	150	2/0/1	105	E			5	
TRA272	Research and testing of transport and transport-technological machines			150	2/0/1	105	E				
LOG207	Supply Chain Modeling			150	2/1/0	105	E				
M-3. Practice-oriented module											
AAP229	Pedagogical practice	BD UC	6						6		
AAP256	Research practice	PD CCH	4								4
M-4. Experimental research module											
AAP251	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	2					2			

AAP241	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	3						3		
AAP254	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	5							5	
AAP255	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	14								14
M-5. Module of final attestation											
ECA205	Preparation and defense of a master's thesis	FA	12								12
	Total based on UNIVERSITY:							30	30	30	30
								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	15	35
PD	Cycle of profile disciplines		24	25	49
	Total for theoretical training:	*8*	*44*	*40*	*84*
	RWMS				*24*
FA	Final attestation	12			12
	TOTAL:	12	44	40	120

Decision of the Scientific Council of KazNRTU named after K.Satbayev. Protocol № 13 «28» 04 2022 y.

Decision of the Educational and Methodological Council of KazNRTU named after K.Satpayev. Protocol № 4 «26» 04 2022 y.

Decision of the Academic Council of the Project Management Institute named after E.A.Turlybayev. Protocol № 6 «24» 02 2022 y.

Vice-Rector for Academic Affairs — **B.A. Zhautikov**

Project Management Institute Director — **B.B. Amralinova**

Head of "Logistics" Department — **G.S. Mukhanova**

Representative of the Council from employers — **S.M. Medetbekov**