



CATALOG OF DISCIPLINES OF THE COMPONENT BY CHOICE

EDUCATIONAL PROGRAM

6B11333 –Digital Logistics

Education level: Bachelor's degree

Duration of study: 4 years

Year of admission: 2023

Module	Cycle	Component	Name of discipline	Total labor intensity		Semester	Learning outcomes	Brief description of the discipline	Prerequisites	Post-requirements	Department
				in academic hours	in academic credits						
1	2	3	4	5	6	7	8	9	10	11	
Module 1 – General educational competencies	OOD	HF	Fundamentals of law and anti-corruption culture	150	5	1	RO 11	Raising public and individual legal awareness and legal culture, as well as the formation of a system of knowledge and civil position to combat corruption as an anti-social phenomenon. As a result of studying the course, the student must master the fundamental concepts of law, the constitutional structure of the state power of the Republic of Kazakhstan, the rights and freedoms of citizens enshrined in the Constitution, the mechanism and protection of the legitimate interests of a person in case of their violation. Active learning methods - case studies, brainstorming	Sociology, Political science, Psychology, Culturology, History of Kazakhstan	final examination	SHDPE

	OOD	HF	Scientific research methods	150	5	1	RO 11	Obtaining theoretical and applied knowledge by students on the methods of scientific research of problems in the field of study, training of specialists with the skills of cognitive activity in the field of science, the formation of deep ideas about the content of scientific activity, its methods and forms of knowledge. Active learning methods - Group, scientific discussion, debate, project method	Sociology, Political science, Psychology, Culturology, History of Kazakhstan	final examination	MVLS
Module 3 - Ecology competencies	OOD	HF	Ecology and life safety	150	5	1	RO 5	The study of the basic environmental concepts, environmental problems and approaches to their solution, sources and types of environmental pollution by enterprises, the principles of standardizing the quality of atmospheric air and water, the main provisions of legislation in various fields, natural and man-made emergencies, their causes, methods of prevention and protection . Teaching methods - case-study analysis, group discussions	Sociology, Political science, Psychology, Culturology, History of Kazakhstan	Labor protection, Final certification	LTM
Module 2 - Ecology competencies	OOD	HF	Fundamentals of Economics and Entrepreneurship	150	5	1	RO 3	Formation of analytical thinking skills in the implementation of conclusions on economic issues; the ability to independently draw conclusions on the basis of the studied material; navigate in any economic situations, apply theoretical economic knowledge in practice, realize their abilities, both in a personal and professional direction. Active learning methods - business and role-playing games	Sociology, Political science, Psychology, Culturology, History of Kazakhstan	final examination	LTM

Module 4 - Basic university competencies

	DB	HF	Cargo science	180	6	3	RO 5	The study of the properties of goods and the conditions of their transportation, the transport classification of goods, factors affecting the goods, the transport characteristics of goods that affect the organization of transportation, the organization of measures to ensure safety during transportation and storage. Mastering the skills of assessing the quality of goods and methods for determining the influence of the transport characteristics of goods on the organization of transportation. Within the framework of the discipline, interactive teaching methods, the method of case-tasks are used.	Engineering Mathematics Transport management	Interaction of modes of transport, Transport support of international transportation, Electronic services in the management of production logistics and distribution	OTOT
			Cargo packaging service	180	6	3	RO 9	To study the properties of containers and packaging, based on the characteristics, operating conditions and manufacturing; determine the types of materials for the production of containers and packaging; summarize information about the environmental aspect of packaging, packaging safety (environmental requirements). To form an idea about the technology of cargo handling in the warehouse, the containers and packaging used, packages, as well as labeling. Within the framework of the discipline, interactive teaching methods, the method of case-tasks are used.	Engineering Mathematics Transport management	Transport support of international transportation, Electronic services in the management of production logistics and distribution	OTOT
	DB	HF	Logistics of passenger transportation	270	9	5	RO 10	Studying the transport support of logistics and route technology of passenger transportation, the principles of their organization and management, the logistics of suburban and urban passenger transport and high-speed transportation. Formation of ideas about the organization of the work of passenger stations and railway stations, ACS "Express". It is planned to conduct classes with a visit to the station complexes Almaty-1, Almaty-2, bus, port station complexes.	Transportation management in transport, Interaction of modes of transport, IT-infrastructure of the transport industry	Transport support for international transportation,	
			Urban transport systems					The study of the theoretical and practical foundations of the functioning of transport systems, taking into account indicators, analysis	Transportation management in transport,	Transport support of international	LTM

								of the state of transport provision of cities and regions. Consideration of the problems of development of urban transport networks, passenger transport, transport infrastructure that meets modern requirements in the field of communications and technologies. Provide for the development of routes for the movement of vehicles and schedules for coordinating traffic schedules. Interactive teaching methods and guest lectures are used.	Interaction of modes of transport, IT-infrastructure of the transport industry	transportation, Logistic infrastructure of the transport system,	
Module 3 - Ecology competencies	DB	HF	Business process management	180	6	5	RO2, RO8	The business processes of enterprises of various sectors of the economy are studied, methods and models for building and analyzing business processes, the need for its rational organization are considered. Basics of building their features and applications. Modern approaches to the management of the organization. Practical skills in the field of business process management are given. Active learning methods: business and role-playing games, brainstorming, case studies.	Basics Economics and Entrepreneurship, Research Methods, Transportation Management, Fundamentals of Logistics	Transport support for international transportation, Digital technologies in transport logistics Global logistics	LTM
			Personnel Management				RO2, RO8	The theoretical foundations of personnel management at enterprises of various forms of ownership, the organization of the personnel service, the maintenance of basic personnel documentation in accordance with the current legislation of the Republic of Kazakhstan are considered. Functional division of labor and organizational structure of the personnel management service. Active learning methods: business and role-playing games, brainstorming, case studies.	Basics Economics and Entrepreneurship, Research Methods, Transport Management, Fundamentals of Logistics	Transport support for international transportation, Digital technologies in transport logistics, Global logistics	LTM
Module 4 - Basic university competencies	DB	HF	Transport support for international transportation	180	6	6	RO5, RO6, RO7	Studying the basic concepts in the field of international transportation, the terms and conditions of Incoterms, International Conventions, the application of customs legislation and legal regulation in the field of international transportation at the stages of building and implementing a logistics delivery system from places of departure to places of destination. Formation of skills to	Interaction of modes of transport, Economic geography of transport, Information technologies in	Global logistics, Digital technologies in DRM	

								perform a specific set of transport operations in international traffic. Within the framework of the discipline, laboratory classes are held, software for foreign economic activity, Rail Tarif, Rail info, etc. are used. Active learning methods are used - "simulator" teaching methods, i.e. aimed at the formation of special knowledge, skills: the method of identifying errors, the method of projects.	logistics		
			Foreign economic activity in transport				RO6, RO8	Studying the basics of foreign economic activity, the concepts of export-import, re-export-re-import of goods, the terms and conditions of Incoterms, the basics of customs legislation and the legal regulation of foreign economic activity at the stages of building and implementing a logistics delivery system from the point of departure to the point of destination. Formation of skills in customs clearance of foreign economic activity, determination of the conditions for the delivery of goods in sales contracts. As part of the discipline, guest lectures are organized by leading experts from international transport and logistics companies. Active learning methods are used: discussion, error detection method, project method.	Interaction of modes of transport, Economic geography of transport, Information technologies in logistics	Global logistics, Digital technologies in DRM	
Module 4 - Basic university competencies	DB	HF	Electronic Services in Production Logistics and Distribution Management	270	9	4	RO3, RO12	The study of the concept, tasks and functions of production logistics, factors that determine the structure of the intra-production system: pulling and pushing logistics systems. Implementation of logistics principles in integrated production management systems MRP-2, LeanProduction, ERP, CSRP, just-in-time, Kanban. The subject is aimed at introducing innovations of new technologies for the effective management of production logistics. Within the framework of the discipline, interactive teaching methods, a calculation-analytical method, and a case-task method are used.	Fundamentals of logistics, Cargo science, Fundamentals of computer modeling, Economic geography of transport	Information technologies in logistics, Transport support of international transportation, Digital technologies in DRM Industrial practice 1.2	LTM
			Logistics of production processes and				RO3, RO9, RO	The study of the principles of distribution logistics, the theoretical foundations of distribution in logistics, logistics and marketing,	Fundamentals of logistics, Cargo science,	Information technologies in logistics,	LTM

Module 6 – Core competencies	PD	HF	distribution	180	6	4	12	distribution channels of goods. Production logistics is designed to solve problems related to ensuring high-quality, timely and complete production of products. Studying the ways of developing and equipping end-to-end logistics processes in the system "production - transportation - storage - supply" Within the framework of the discipline, interactive teaching methods, the method of case tasks, gamifications are used. The form of assessment is an examination in the form of testing.	Fundamentals of computer modeling, Economic geography of transport	Transport support of international transportation, Digital technologies in DRM Industrial practice 1.2	
			IT infrastructure of the transport industry				RO2, RO5, RO 10	To study and evaluate the development of the transport infrastructure of all types of transport using innovative IT technologies to solve the problem of innovative management in the process of introducing innovative technologies in transport and logistics infrastructure using innovative IT technologies, software such as automated control systems, 1C: Enterprise, Microsoft SQL Server DBMS 7.0 etc. for transport management. As part of the study of the discipline, guest lectures are held by leading top managers of transport companies, IT specialists in the transport industry, solving and analyzing situational problems. The form of assessment is the implementation of a complex practical task	Fundamentals of computer modeling, Cargo science, Fundamentals of computer modeling, Economic geography of transport	Information technologies in logistics, Design of logistics systems, Digital technologies in DRM Industrial practice 1.2	LTM
			Logistic infrastructure of the transport system				RO2, RO5, RO 10	Studying the basic principles of designing logistics infrastructure, terminal technologies of the transport system. Describes the organization of production, profile, specialization and features of transport infrastructure facilities. Forms in students the skills of documenting decisions in the management of the operational activities of organizations when introducing new elements of the transport and logistics infrastructure by mode of transport. Within the framework of the discipline, interactive teaching methods, the method of case-tasks are used.	Fundamentals of computer modeling, Cargo science, Fundamentals of computer modeling, Economic geography of transport	Information technologies in logistics, Design of logistics systems, Digital technologies in DRM Industrial practice 1.2	LTM

Module 5 - IT competencies	PD	HF	Artificial intelligence systems in logistics	180	6	8	RO2, RO 10, RO 12	Formation of a set of competencies for future specialists in the use of marketing tools directly or indirectly related to the Internet when promoting a site, analyzing the market and the competitive environment to ensure stable development and sustainable growth of a company or enterprise. When studying the discipline, interactive methods of teaching case-learning and discussion are used. As part of the discipline, on-site classes are provided at the branch of the department and guest lectures by top managers. The form of control is combined.	Fundamentals of computer modeling, Fundamentals of computer modeling, Logistics systems design	Digital technologies in DCM,IT infrastructure of the transport industry Field trip 2	ICT
			Internet marketing for the promotion of logistics services				RO2, RO 10, RO 12	Formation of a set of competencies for future specialists in the use of marketing tools directly or indirectly related to the Internet when promoting a site, analyzing the market and the competitive environment to ensure stable development and sustainable growth of a company or enterprise. When studying the discipline, interactive methods of teaching case-learning and discussion are used. As part of the discipline, on-site classes are provided at the branch of the department and guest lectures by top managers. The form of control is combined.	Fundamentals of computer modeling, Fundamentals of computer modeling, Information technology in logistics	Design of logistics systems, Digital technologies in DCM,IT infrastructure of the transport industry Field trip 2	ICT
Module 6 - Core competencies	PD	HF	Design of logistics systems	180	6	7	RO5, RO8, RO9	Studying the basic principles of designing logistics systems, a systematic approach and system analysis in design. Perform modeling of objects and subjects of management in logistics systems using Corel Draw, AutoCad products. Studying the criteria for the quality and efficiency of the functioning of logistics systems, methods and algorithms for designing logistics systems at the micro and macro levels, forming their organizational structure with optimization of design decisions and evaluating performance and efficiency. The calculation and design of the logistics system links is carried out using computer technology (Excel, Mathcad, AutoCAD, Revit, SCAD).	engineering mathematics, Fundamentals of computer modeling, Electronic Services in Production Logistics and Distribution Management	Information systems in warehouse management, Digital technologies in DCM,IT infrastructure of the transport industry Industrial practice 2 Final certification	LTM

			Distribution system design				RO5, RO8, RO9	Studying the tasks of coordinating and optimizing the functioning of the distribution system for products and services: designing and building programs for the production, supply and marketing of finished products, types of intermediaries in distribution channels. Consider the elements of the commodity distribution network of the region, regional distribution centers with the location of the logistics center, types of deliveries and technological schemes of transportation. Within the framework of the discipline, active learning methods are used - conversation, role-playing, case tasks.	engineering mathematics, Fundamentals of computer modeling, Electronic Services in Production Logistics and Distribution Management	Information systems in warehouse management, Digital technologies in DCM, IT infrastructure of the transport industry Industrial practice 2 Final certification	
			Managerial Economics (Minor 1)	90	3	5	RO 7, RO 8	Formation of the conceptual apparatus and development of economic analysis skills using modern models and laws of economic science, consideration of economic problems and tasks facing the head of the company. The study of this discipline will allow students to gain and develop knowledge in the field of analytical research of economic, technological and technical parameters of an enterprise, and will also allow them to master the skills of applying special methods of economic justification of management decisions and assessing their consequences. Active learning methods are used - situational tasks, case method. Form of control - oral exam.	Interaction of modes of transport, Economic geography of transport, Cargo science, Transport management	Final certification	TLM
			Logistics Process Management (Minor 1)	90	3	6	RO 5, RO 10	Manage traffic flows on all types of transport and optimize the routes of material flows, methods for determining and predicting all parameters of the functioning of networks. Students learn to reveal the essence of flow-forming factors, characteristics of the transport network, behavioral factors; establish the relationship between the composition of traffic flows and output parameters; to study the forecasting of the load of transport networks;	Information technology in logistics, Passenger transport logistics, Urban transport systems, Business	Final certification	LTM

								develop skills in solving problems and analyzing transport networks. Teaching methods are: case solving. Form of control - individual project	process management		
			E-Commerce (Minor 1)	90	3	6	RO 3, RO 8	Learning key business concepts, entrepreneurial skills and knowledge of logistics solutions and e-business strategies, planning and internet marketing, web application development, strategic planning, product and service design and development through market analysis, logistics, online business model building. Within the framework of the discipline, interactive teaching methods, the calculation-analytical method, the case-task method, game methods are used. Form of control - individual project.	Fundamentals of computer modeling, Information technology in logistics, Business process management, Electronic services in the management of production logistics	Final certification	LTM
			Time Management (Minor 2)	90	3	5	RO 6, RO 7, RO 8	Formation of students' general ideas about the essence and types of time management, principles and methods of time resource management for more successful professional activities. Active learning methods are used - situational tasks, case method. Form of control - individual project	Information technology in logistics, Passenger transport logistics, Urban transport systems, Business process management	Final certification	LTM
			Optimization of traffic flows (Minor 2)	90	3	6	RO 5, RO 10	Acquaintance with modern problems of development of transport systems. The study of the principles of organizing transportation by various modes of transport in their rational interaction, the optimal organization of traffic flows on the network (car traffic, passenger traffic, etc.). Formation of skills for optimal planning and promotion of traffic flows along the main network, while ensuring unconditional traffic safety of vehicles and creating conditions	Interaction of modes of transport, Economic geography of transport, Cargo science, Transport management	Final certification	OTOT

								for the safe work of transport personnel. The discipline provides for the solution of practical problems. The form of control is the protection of group projects.			
			Microsoft Power BI (Minor 2)	90	3	7	RO 5, RO 10	Formation of students' skills and knowledge to collect, analyze and structure data in order to build interactive dashboards, program at the modern level of development of the MDX multidimensional data analysis language, build models and algorithms for projects in current areas of BI technology, be able to analyze the essence of the subject field of the project and make decisions. Active learning methods are used - brainstorming, work in small groups. The form of control is an individual project.	Fundamentals of computer modeling, Information technology in logistics, Electronic services in the management of production logistics	Final certification	ICT

Head of the Department of «Logistics Management in Transport»

Mussaliyeva R.D

AGREED:

Director of the branch of JSC "KTZE Express"
"KTZE South"



28.02.2023

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JSC "NC" KTZh " Directorate of Automation and Digitalization



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