

The list of academic disciplines of the university component

6B11 - Services

(Code and classification of the field of education)

6B113 - Transport services

(Code and classification of the direction of training)

1040

(Code in the International Standard Classification of Education)

B095 - Transport service

(Code and classification of the educational program group)

6B11303 - Logistics and Organization of Transportation

(Code and name of the educational program)

bachelor

(Level of preparation)

set of 2024

Developed

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Reviewed

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Approved

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Bases of economics, law and ecological knowledge

Discipline cycle	General educational disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The integrated discipline includes the main issues and principles in the field of fundamentals of law and anti-corruption culture, economics, entrepreneurship and leadership, ecology and life safety. Features of the use of regulatory legal acts, the ability to use the business, ethical, social, economic, entrepreneurial and environmental standards of society. Specifics of environmental-legal, economic, entrepreneurial relations, leadership qualities and principles of combating corruption.

Purpose of studying of the discipline

It consists in studying the basic patterns of the functioning of living organisms, the biosphere as a whole and the mechanisms of their sustainable development under the conditions of anthropogenic impact and emergency situations; in understanding the concept of corruption, the legitimacy of the fight against it, the content of the state penal policy; in the formation of students' basic fundamental stable knowledge on the basics of economic theory, in instilling the skills and abilities of economic thinking; in introducing students to the theory and practice of entrepreneurship, to the basics of creating their own business; in the formation of theoretical knowledge and practical skills for the development and improvement of leadership qualities.

Learning Outcomes

ON1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technologies taking into account current trends in the development of society.

Learning outcomes by discipline

- 1) Analyzes the issues of safety and preservation of the natural environment as the most important priorities of life;*
- 2) Shows knowledge of the basics of environmental management and sustainable development, assesses the impact of man-made systems on the environment;*
- 3) Shows knowledge of the main regulatory legal acts of the Republic of Kazakhstan, their understanding and application;*
- 4) Demonstrates knowledge of the laws of the development of economic processes, clearly formulates his own position, finds and clearly sets out arguments in its defense;*
- 5) Is able to characterize the types of entrepreneurial activity and the entrepreneurial environment, draw up a business plan, create an entrepreneurial structure and organize its activities;*
- 6) Knows the fundamental provisions about the role of leadership in managing large and small social groups.*

Prerequisites

School course

Postrequisites

Basic and profile disciplines of the EP

Introduction to the logistics profession

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies the history of logistics development, the basics of commercial and warehouse activities, the main logistics functions and functional areas, the classification of logistics systems, the concept of logistics, the principles of logistics, logistics management facilities, types of logistics, the functions of a logistics manager in modern companies, modern market needs for logisticians of different specializations, trends in logistics development, features of the logistics profession, job descriptions responsibilities, as well as responsibilities.

Purpose of studying of the discipline

Obtaining students' initial knowledge of logistics, to show the importance of logistics in the national economy and the company as a whole

Learning Outcomes

ON4 Determine the type and purpose of the cargo, establishes a relationship with the modes of transport for transportation

Learning outcomes by discipline

- 1) Apply the conceptual and categorical apparatus, have knowledge of customs and transport legislation, and insurance business. Apply and maintain record keeping and document management.*
- 2) Determine the geography of the home country and foreign countries for international transportation.*
- 3) Understand the essence and significance of your future profession, show a steady interest in it.*

Prerequisites

School course

Postrequisites

Organization of transportations and management by motion

Mathematics

Discipline cycle	Basic disciplines
Course	1
Credits count	5
Knowledge control form	Examination

Short description of discipline

The purpose of this course is to provide students with fundamental training in mathematics. The course is aimed at forming a sufficiently high culture of mathematical thinking among students and developing the ability to creatively approach problem solving. In addition to

studying the fundamental foundations of higher mathematics (elements of analytical geometry, linear algebra, mathematical analysis, differential equations), the course assumes consideration of various applications of mathematics to solving production problems from the field of professional specialization.

Purpose of studying of the discipline

Creation of the basis for the development of logical thinking and mathematical culture. Formation of basic knowledge and acquisition of basic skills of using mathematical apparatus for solving theoretical and applied problems, as well as the necessary level of mathematical training for mastering other applied disciplines studied within a specific profile; skills of working with special mathematical literature

Learning Outcomes

ON3 Use the basics of mathematical and economic knowledge to solve logistical problems

Learning outcomes by discipline

- 1) Applies modern mathematical methods to solve applied problems
- 2) Creates algorithms for solving professional problems by mathematical methods
- 3) Plans activities aimed at solving research tasks
- 4) Selects methods of mathematical analysis and modeling, theoretical and experimental research of applied problems
- 5) Uses mathematical symbolism to express quantitative and qualitative relations of objects
- 6) Applies methods of visual graphical representation of research result

Prerequisites

School course

Postrequisites

Mathematical methods and models in logistics Mathematical methods of decision of transport tasks Mathematical modeling of economic processes and systems

Transport geography

Discipline cycle	Basic disciplines
Course	1
Credits count	3
Knowledge control form	Examination

Short description of discipline

The discipline studies the basic concepts of transport geography, the interaction of transport and branches of the national economy of the country, the geography of the main modes of transport, the economic and geographical characteristics of transport of the economic regions of the Republic of Kazakhstan, as well as transport itself and the economic zoning of the country. The influence of economic and geographical location on the development of various modes of transport. Problems of development of the transport system of the region in modern and promising conditions. The world transport system.

Purpose of studying of the discipline

The purpose of studying the discipline is to create a system of knowledge about transport as a branch of material production and the most important component of infrastructure.

Learning Outcomes

ON4 Determine the type and purpose of the cargo, establishes a relationship with the modes of transport for transportation

Learning outcomes by discipline

- 1) To use the theoretical knowledge gained when choosing the type of transport, types of rolling stock, means of packaging, modes of transportation and storage, registration of transportation documents and unsecured transportation, ensuring the safety of transported goods, rational use of the carrying capacity and capacity of mobile transport.
- 2) To deepen knowledge on the economic, geographical and geopolitical situation of the Republic of Kazakhstan
- 3) Plan and organize the work of transport complexes of cities and regions, the organization of rational interaction of modes of transport that make up a single transport system for the transportation of passengers, baggage, cargo and cargo

Prerequisites

School course

Postrequisites

Flat rate of transport The General course of the Railways History of transport development

Educational practice

Discipline cycle	Basic disciplines
Course	1
Credits count	2
Knowledge control form	Total mark on practice

Short description of discipline

The educational practice combines theoretical knowledge and practical skills acquired during the training period, allows to expand opportunities in preparing students for the wide use of knowledge in practice about technologies and the organization of all types of transportation in professional activities in the future, gives the opportunity to develop and deepen knowledge, skills and abilities in the field of relevant disciplines and navigate in the conditions of technological changes, common in professional activities

Purpose of studying of the discipline

The purpose of the training practice is the development of general cultural competencies of students, the acquisition of primary professional competencies by students, the acquisition of the first skills of research activity, business correspondence skills, the acquisition of practical skills and work skills in accordance with the educational program:

- general familiarization with the main objects, methods and principles of work of enterprises and organizations providing transportation services;
- understand the current state and prospects of development of transport organizations;
- use computer methods of searching, collecting, storing and processing information;
- to get acquainted with the technical and regulatory documentation of transport enterprises, the rules of registration of itinerary sheets, cargo maps, waybills, etc.;

- consolidation of experience and skills in organizational, technical and administrative management of production;
- acquisition and consolidation of experience in the analysis of production processes.

Learning Outcomes

ON4 Determine the type and purpose of the cargo, establishes a relationship with the modes of transport for transportation

Learning outcomes by discipline

- 1) To use the theoretical knowledge gained when choosing the type of transport, types of rolling stock, means of packaging, modes of transportation and storage, registration of transportation documents and unsecured transportation, ensuring the safety of transported goods, rational use of the carrying capacity and capacity of mobile transport.
- 2) Analyze documents regulating the operation of transport in general and its facilities in particular.
- 3) Apply professional vocabulary in the field of professional activity.

Prerequisites

Introduction to the logistics profession

Postrequisites

Production practice 1

Study of loads

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies definitions, types and classes of goods; properties, nomenclature, volume and mass characteristics of goods; structure, types and purpose of containers and packaging materials; labeling of goods; regulatory and technical documentation for the production of containers; international and republican standardization of transport containers, unification of transport containers, as well as the definition of special conditions of transportation and fastening of goods with the use of technical means for loading and unloading operations

Purpose of studying of the discipline

The purpose of studying the discipline "Cargo Science" is to study the specific properties and volume-mass characteristics of cargo, as well as the principles of their placement and attachment to the rolling stock.

Learning Outcomes

ON4 Determine the type and purpose of the cargo, establishes a relationship with the modes of transport for transportation

Learning outcomes by discipline

- 1) Use the obtained theoretical knowledge in: choosing the type of transport, types of rolling stock, loading and unloading machines and devices, modes of transportation and storage, ensuring the safety of transported goods; rational use of the carrying capacity and capacity of rolling stock.
- 2) Evaluate the physical and chemical properties and volume-mass characteristics of the main bulk cargoes, affecting the conditions of transportation, transshipment and storage, types of containers and packaging materials that ensure the safety of transported goods, the method of placing and securing cargo in the wagon, the basic principles and ways to reduce cargo losses en route.
- 3) Determine the compatibility of goods with different physical and chemical properties in the same warehouse or cargo room.

Prerequisites

Transport geography

Postrequisites

Packaging and packaging technology

World of Abai

Discipline cycle	Basic disciplines
Course	2
Credits count	3
Knowledge control form	Examination

Short description of discipline

The discipline is aimed at studying historical facts, the philosophical and artistic foundations of the works of Abay Kunanbaev, Shakarim Kudaiberdiev, which form worldview and aesthetic values, the student's ability to express his opinion, practical skills and perception of such human qualities as morality, honesty, artistic character. The genius of the writers of Kazakh literature and the role of M. Auezov in the study and popularization of Abai's heritage, the significance of his works for history, literature and science are determined.

Purpose of studying of the discipline

Formation of the meaning of philosophical and ideological being, understanding of the problems raised in the works of Abai Kunanbayuly, Shakarim Kudaiberdiyul, Mukhtar Auezov and application of the acquired knowledge in the practice of everyday life.

Learning Outcomes

ON1 Demonstrate socio-cultural, economic, legal, environmental knowledge, communication skills, apply information technologies taking into account current trends in the development of society.

Learning outcomes by discipline

- 1) Analyzes the philosophical and artistic foundations of works, historical facts related to the creative heritage of Abai Kunanbayev, Shakarim Kudaiberdiyev, Mukhtar Auezov
- 2) Uses in practice the humanistic ideas of Abai's philosophical and artistic works
- 3) Assesses the place and significance of Abai's works in the history of literature and science

Prerequisites

The module of socio-political knowledge (sociology, political science, cultural studies, psychology)

Postrequisites

Basic and profile disciplines of the EP

Bases of freight and commercial work

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies international transport documentation, as well as the organizational structure of cargo and commercial work management in transport, including types of messages and classification of cargo transportation; organization of receiving, loading, unloading and delivery of goods; transport and shipping documents.

Purpose of studying of the discipline

The study of the course "Organization of cargo and commercial work" by students is necessary to gain knowledge in the field of cargo and commercial work in the conditions of the complex, continuous and dynamic nature of the work of the transport complex, requiring the coordinated functioning of different modes of transport.

Learning Outcomes

ON5 Simulate production processes in transport to improve the productivity of transport and the quality of work in the organization of traffic

Learning outcomes by discipline

- 1) Choose transport and technological schemes of cargo delivery*
- 2) Apply methods for calculating the capacity of elements of the transport network*
- 3) Analyze and calculate the throughput (processing) capacity of the elements of the transport system*

Prerequisites

Transport geography

Postrequisites

Organization of transport and logistics activities Transport-logistic infrastructure Logistic of the system of international transport processes

Organization of transportations and management by motion

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies the organization of the work of hub transport, the organization of the movement of cars and trains, traffic management, as well as the features of the organization of traffic in order to fully meet the needs of transport to solve the problem of effective development of the capacity and carrying capacity of the transport network to the best traffic management system, flow management based on the principles of logistics and research of transport operations to solve the problem of transport processes

Purpose of studying of the discipline

The study of the course "Organization of transportation and traffic management" by students is necessary for them to gain knowledge in the field of effective use of technical equipment of transport, taking into account the volume of work, the ability to solve issues of development of its technical means, both in the conditions of current operation, and in the near and long term; to acquire the ability to effectively organize on the basis of modern management and marketing the work of transport facilities and the organization of movement of transport units; to provide an optimal cargo flow management system, on the basis of logistics principles and research of transport operations, to solve the issues of the transportation process; in order to fully satisfy the transportation requests, to solve the issues of effective development of the capacity and carrying capacity of transport networks; to systematically solve the issues of full and high-quality satisfaction of passengers during their transportation; to make calculations on the effective use of technical means; analyze the work carried out on transport, draw reasonable conclusions and suggestions from this in order to improve the operation of transport facilities.

Learning Outcomes

ON5 Simulate production processes in transport to improve the productivity of transport and the quality of work in the organization of traffic

Learning outcomes by discipline

- 1) To make schedules of movement of vehicles.*
- 2) To solve the problems of organization and management of the transportation process.*
- 3) In operational conditions, make decisions on the maintenance of the transportation process, taking into account the effective use of vehicles based on the analysis of the activities of transport facilities.*

Prerequisites

Transport geography

Postrequisites

Organization of transport and logistics activities Transport-logistic infrastructure Logistic of the system of international transport processes

Organization and mechanization of loading and unloading operations

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies the basic rules of functioning of transport and cargo systems, elements, mechanization and basics of organization of loading and unloading operations; loading and unloading points and warehouses; general information about cargo handling devices

and means, loading and unloading mechanisms, modern loading and unloading machines, systems and equipment, as well as ways to determine the indicators of the choice of types of technologies when design of complex automation and mechanization of warehouse operations and loading and unloading operations

Purpose of studying of the discipline

The purpose of studying the discipline "Organization and mechanization of loading and unloading operations" is to study modern loading and unloading machines, equipment, pneumatic, hydraulic and suspended transport, car and wagon dumpers, the theory of their calculation, the definition of the main indicators for the selection of types of technology in the design of complex mechanization and automation of loading and unloading operations and warehouse operations. Highly efficient technological processes with the main cargoes transported by railways are being studied, as well as ways of transshipment of these cargoes from narrow gauge to wide gauge, from railway to water and road transport and back.

Learning Outcomes

ON7 To make decisions on the maintenance of the transportation process and operation of transport, taking into account the effective use of rolling stock

Learning outcomes by discipline

- 1) Know the methods of securing goods of various nomenclature according to international standards and technical documentation, the rules of loading and unloading and cargo storage.
- 2) Organize loading and unloading operations on the basis of highly efficient technological processes, the use of modern machines and devices, automation and computer technology, providing complex mechanization and automation of transshipment processes, reducing the downtime of vehicles under cargo operations, ensuring the safety of cargo and rolling stock.
- 3) Analyze the work of loading and unloading fronts and develop measures to improve their functioning in order to improve performance indicators.

Prerequisites

Study of loads

Postrequisites

Modern technologies of cargo and passenger delivery Modern logistics technologies for cargo and passenger delivery
technologies in transportation

New

Production practice 1

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Total mark on practice

Short description of discipline

The first industrial practice familiarizes students with the upcoming work and allows them to consolidate their knowledge at a higher educational institution, mastering production experience, acquiring practical skills and competencies, studying the organization of the logistics process at the enterprise. The practice is based on the direct participation of students in the production process as understudies, observing the requirements of labor protection and internal regulations, which allows them to acquire professional skills

Purpose of studying of the discipline

The purpose of the practice is an in-depth study of the transportation process, the organization of traffic and operation of transport, consolidation of theoretical and practical knowledge gained by students in the study of General and special disciplines, the study of the duties of engineering and technical workers of enterprises, economic issues and issues of organization and production planning.

Learning Outcomes

ON5 Simulate production processes in transport to improve the productivity of transport and the quality of work in the organization of traffic

Learning outcomes by discipline

- 1) To issue transportation documents
- 2) Apply methods of organization and management of the transport process
- 3) Control the cargo with the help of accompanying documents.

Prerequisites

Educational practice

Postrequisites

Production practice 2

Packaging and packaging technology

Discipline cycle	Basic disciplines
Course	2
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies the concept, types of containers and packaging, their classification and functions of the materials used; the structure and properties of materials, their technological and functional characteristics, including the design of containers and packaging; the definition of general requirements for transport labeling.

Purpose of studying of the discipline

The study of this discipline is aimed at students' research of the functions of containers and packaging as a technical and aesthetic means in the design of goods of different groups, familiarization with the main technological features in the design of containers and packaging.

Learning Outcomes

ON4 Determine the type and purpose of the cargo, establishes a relationship with the modes of transport for transportation

Learning outcomes by discipline

- 1) Classify the cargo and determine its group in the tariff, planned and educational nomenclature: choose the type of packaging,

packaging materials and carry out strength calculations in accordance with the transport characteristics of the cargo, determine optimal transportation conditions and a set of measures to reduce cargo losses, correctly place the goods in the wagon and calculate the power of the fastening elements.

2) Know the methods of choosing the optimal packaging and packaging of goods.

3) Apply transport and other marking of goods.

Prerequisites

Study of loads

Postrequisites

Rules for the carriage of goods and passengers Freight transportations Passenger transportations

Cooperation of types of transport

Discipline cycle	Basic disciplines
Course	3
Credits count	5
Knowledge control form	Examination

Short description of discipline

Logistics and transport. Transport in the supply chain. Transport security. Unified transport system and the scope of different modes of transport. New and non-traditional modes of transport. Capacity of ETS elements. Transport nodes in the transportation process. Ways to improve the efficiency of interaction between modes of transport.

Purpose of studying of the discipline

The purpose of studying the discipline "Interaction of modes of transport" is to provide relevant and mandatory general transport training under the educational program, since a qualified specialist in modern conditions for high-quality and effective professional activity must have sufficient knowledge of the issues of related modes of transport and the conditions of their interaction in the country's economy, including in the transportation process.

Learning Outcomes

ON5 Simulate production processes in transport to improve the productivity of transport and the quality of work in the organization of traffic

Learning outcomes by discipline

1) Compare the general patterns of development of technical means and operation of modes of transport.

2) Classify the features of modes of transport in a single transport system.

3) Analyze the technical and operational characteristics of modes of transport.

Prerequisites

Organization of transportations and management by motion

Postrequisites

Modern technologies of cargo and passenger delivery Modern logistics technologies for cargo and passenger delivery New technologies in transportation

Specialized rolling stock

Discipline cycle	Basic disciplines
Course	3
Credits count	5
Knowledge control form	Examination

Short description of discipline

The discipline studies specialized rolling stock, its design and technical condition, operational properties, separation of rolling stock by purpose and patency, as well as the main differences between general-purpose rolling stock from specialized and special rolling stock; the nomenclature of goods transported by specialized rolling stock, types and methods of maintenance and repair, taking into account the safety of rolling stock

Purpose of studying of the discipline

The purpose of this course is to consolidate the knowledge of specialized rolling stock, prospects for the development of transport, trends in the operation of vehicles.

Learning Outcomes

ON7 To make decisions on the maintenance of the transportation process and operation of transport, taking into account the effective use of rolling stock

Learning outcomes by discipline

1) Determine the technical means that ensure the interaction of modes of transport.

2) Understand the design of specialized rolling stock.

3) Classify specialized rolling stock by design, purpose, types and characteristics.

Prerequisites

Flat rate of transport The General course of the Railways History of transport development

Postrequisites

Operation and maintenance of rolling stock Technical operation of transport Basics of ergonomics and design of transport equipment

Production practice 2

Discipline cycle	Basic disciplines
Course	3
Credits count	5
Knowledge control form	Total mark on practice

Short description of discipline

The second industrial practice, the effectiveness of which is determined by its contribution to the formation of professional abilities of students, improves the quality of professional training. Students, observing the processes of planning and organizing the logistics process, studying the features of various logistics operations, registering the parameters of the company's activities, studying the basic documentation, methods of evaluating the effectiveness and control of logistics operations, thereby create an information base for performing individual tasks.

Purpose of studying of the discipline

The purpose of the practice is an in-depth study of the transportation process, the organization of traffic and operation of transport, consolidation of theoretical and practical knowledge gained by students in the study of General and special disciplines, the study of the duties of engineering and technical workers of enterprises, economic issues and issues of organization and production planning.

Learning Outcomes

ON6 To make decisions on the choice of new technologies for cargo processing and passenger delivery based on the study and generalization of innovative approaches of world and domestic experience

Learning outcomes by discipline

- 1) Plan your own activities when organizing work on transport services.
- 2) Calculate the transport costs of the logistics system.
- 3) Apply the methodology of designing in-house logistics systems in solving practical problems.

Prerequisites

Production practice 2

Postrequisites

Production practice 3

Fundamentals of scientific research

Discipline cycle	Basic disciplines
Course	4
Credits count	3
Knowledge control form	Examination

Short description of discipline

The discipline studies general information about science; known methods of scientific research, their classification, areas of application, as well as their place in the research process; organization and general information about scientific research; the choice of their topics; methods of working with literary sources and practical information; the concept of academic writing; the issues of search, accumulation and processing of scientific information for writing graduation and qualification papers.

Purpose of studying of the discipline

The study of the basics, types, methods and methods of research work.

Learning Outcomes

ON8 Analyze and process information, technical data, indicators and performance of transport systems

Learning outcomes by discipline

- 1) Selects the relevant scientific direction and topic of scientific research
- 2) Processes the results of experiments
- 3) Draws up a report on research work

Prerequisites

School course

Postrequisites

Fundamentals of innovation and patenting Certification and licensing of transport and logistics services Intellectual property in quality management