KSPEU

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
«KAZAN STATE POWER ENGINEERING UNIVERSITY»
(FSBEI HE «KSPEU»)

APPROVED
Director of the Institute of Digital Technologies and Economics
_____ Zainullin R.R.
«24»_____February_____2026

WORK PROGRAM FOR THE DISCIPLINE

B1.M.21 Logistics

Field of training — 38.03.02 Management

Qualification — Bachelor's Degree

Kazan, 2026

Program eveloped by:

Name Department name	Position, academic degree, academic title	FULL name of the developer
of the EOP developer	Professor, Doctor of Economics, Professor	Burganov R. A.
EOP	Associate Professor, Candidate of Economics, Associate Professor Khusainova E. A.	Khusainova E. A.

Coordination	Name divisions	Date	No. protocol	Signature
Approved	By the EOP	05.03.2026	11	_____ Acting Head of Department, Associate Professor Livshits S.A.
Agreed	Management	10.02.2026	Protocol №5	_____ Head of the Department., Doctor of Social Sciences, prof.Makhiyanova A.V.
Agreed	Educational and Methodological Council of IDTE	24.02.2026	Protocol №6	_____ Director, Ph.D., Associate Professor, Zainullin R.R..
Approved	Scientific Council of IDTE	24.02.2026	Protocol №6	_____ Director, Ph.D., Associate Professor, Zainullin R.R.

1. The purpose, objectives and planned learning outcomes of the discipline

The purpose of mastering the discipline "Logistics" is to develop students' competencies in the field of a logistics approach to managing enterprise activities in order to improve the efficiency of its production and economic activities, as well as a system of basic knowledge necessary for the development and implementation of logistics systems.

The objectives of the discipline are:

- to study the theoretical acquisition of knowledge by students in the field of financial calculations, economic efficiency and management of an organization from the standpoint of a logistic approach for the preparation of information reviews and analytical reports;
- to study the basic methodological provisions of the logistics concept of enterprise management;
- to form a holistic understanding of logistics as a business process and management system.

Competencies and indicators developed in students:

Code and namecompetencies	Code and name of the indicator
UK-1. Capable of searching, critically analyzing, and synthesizing information, and applying a systematic approach to solving assigned problems.	UK-1.2: Uses a systems approach to solve assigned problems, is proficient in logical methods of processing information, distinguishes facts from opinions, hypotheses and interpretations
OPK-2. Capable of collecting, processing, and statistically analyzing data necessary to solve economic problems.	OPK-2.6. Capable of collecting, processing, and analyzing initial information necessary for solving management and economic problems using modern tools.

2. The place of the discipline in the structure of the educational program

The discipline “Logistics” is a mandatory part of the curriculum for the training program 38.03.01 “Economics”.

Previous disciplines (modules), practices, research, etc.:

-Information Technology.

-Fundamentals of statistics.

-Economy.

Subsequent disciplines (modules), practical training, research, etc.:

- Economic and mathematical modeling.
- Risk management.

3. Structure and content of the discipline
3.1. Structure of the discipline

For full-time education

Type of academic work	Total ZE	Total hours	Semester(s)
			3
GENERAL WORK INTENSITY OF THE DISCIPLINE	4	144	144
CONTACT WORK*	-	81	81
AUDITING WORK	1.89	68	68
Lectures	0.94	34	34
Practical (seminar) classes	0.94	34	34
INDEPENDENT WORK OF THE STUDENT	2.11	76	76
Processing of educational material	1.11	40	40
Preparation for midterm assessment	1	36	36
Interim assessment:			E

For full-time and part-time education

Type of academic work	Total ZE	Total hours	Semester(s)
			6
GENERAL WORK INTENSITY OF THE DISCIPLINE	4	144	144
CONTACT WORK*	-	72	72
AUDITING WORK	1.5	54	54
Lectures	1	36	36
Practical (seminar) classes	0.5	18	18
INDEPENDENT WORK OF THE STUDENT	2.5	90	90
Processing of educational material	2.25	81	81
Preparation for midterm assessment	0.25	9	9
Interim assessment:			E

3.2. Contents of the discipline, structured by sections and types of classes

Sections disciplines	Total hours	Distribution of labor intensity by type of educational work			Forms and appearance control	Indices of indicators of developing competencies
		lectures	etc. zan.	myself. slave.		
Section 1	22	6	6	10	TK1	UK-1.2.Z, OPC-2.6.Z
Section 2	73	24	24	25	TK2	UK-1.2.B, OPK-2.6.U
Section 3	13	4	4	5	TK3	UK-1.2.U, OPK-2.6.V
Exam	36			36	**OM**	**UK-1.2.Z, UK-1.2.U, OPK-2.6.Z, OPK-2.6.U**
TOTAL	**144**	**34**	**34**	**76**		

3.3. Content of the discipline

Section 1. Introduction to Logistics

Topic 1.1. Concept, goals and objectives of logistics.

Logistics: concept, goals, objectives. Principles of logistics. Prerequisites for the development of logistics. The necessity and feasibility of logistics. A brief historical overview of the development of logistics. Stages of logistics development in the economy.

Topic 1.2. Logistics methods.

Logistics methods: purpose and classification. General characteristics of logistics problem-solving methods. Full cost analysis in logistics. ABC and XYX methods – analysis in logistics. Streamlining product flow based on full cost analysis. Classical and systems approaches to organizing material flow, definition, and basic principles.

Topic 2.1. Logistics systems.

Basic concepts. The purpose of creating a logistics system. Links between the logistics system and the external environment. Logistics synergy. Logistics portfolio. Properties of a logistics system. Logistics cycle. Characteristics of logistics system links. Information logistics systems.

Topic 2.2. Design of logistics systems.

Design principles. Design stages and tools. Evaluation of logistics system effectiveness.

Section 2 Functional Areas of Logistics.

Topic 2.1. Purchasing logistics.

Purchasing logistics tasks and functions. Operating mechanism. Selecting a supplier for the company. Key requirements for supplier selection. The "Just in Time" operational procurement method. Procurement planning: analysis, determination of needs, and calculation of quantities of ordered materials. Determining the procurement method. Documenting the order. Verifying the quality and quantity of received products. Payment for deliveries.

Topic 2.2. Warehousing Logistics

Warehousing logistics. Warehouse classification. Basic concepts of warehousing activities.Warehouse logistics. Warehouse documentation. Containers and packaging in warehousing logistics. Key stages of creating a warehousing system. Warehouse space planning.

Topic 2.3. Logistics of production processes

Form of organization of movement of material flows.Material flow management systems (MRP; DRP; JIT; KANBAN; OPT). A static representation of the organization of the production process over time. Calculation of the duration of the product production cycle. A dynamic representation of the organization and optimization of the process of manufacturing a set of parts.

Topic 2.4. Distribution and sales logistics

Goals, objectives, and functions of distribution logistics. Distribution channels. Logistics distribution intermediaries. Distribution logistics rules. Distribution systems. Distribution planning. Distribution system organization.

Topic 2.5. Inventory Logistics

Concept and types of material stocks.Reasons for maintaining inventories. Inventory rationing. Inventory control system. Determining the optimal order size. Cost dependence on order size.

Topic 2.6. Transport logistics

The essence, principles and functions of transport logistics.Basic concepts of freight transportation and forwarding. Types of freight transportation. Advantages and disadvantages of individual modes of transport.Transport documentation. Transport and logistics chains, information support.International road transport.

Topic 2.7. Customs logistics

Definition and key issues of customs logistics. Regulatory framework for international shipping. Payment methods. Delivery bases. Tariff and non-tariff regulation. Customs procedures.

Section 3. Organization of logistics management

Topic 3.1. Service logistics.

The concept and system of logistics services. The level of logistics service. Criteria for the quality of logistics services.

Topic 3.2. Organization of logistics management.

Contents and objectives of logistics management.Logistics management functions. Material flow management mechanism. Organizational structures of the management system. Improving material flow management.Control in logistics.

3.4. Thematic plan of practical classes

1. Concept, goals and objectives of logistics.
2. Logistics methods.
3. Design of logistics systems.
4. Purchasing logistics.
5. Warehousing logistics
6. Logistics of production processes
7. Distribution and sales logistics
8. Inventory logistics
9. Transport logistics
10. Customs logistics

11. Organization of logistics management

3.5. Thematic plan of laboratory work

This type of work is not provided for in the curriculum.

3.6. Course project/coursework

This type of work is not provided for in the curriculum.

4. Evaluation of learning outcomes

The assessment of learning outcomes in a discipline is carried out within the framework of ongoing monitoring and midterm assessment, conducted using a point-rating system (PRS).

Learning outcomes assessment scale for the discipline:

Code competencies	Code competence indicator	Plan-roved results training in discipline	Level of development competence indicator			
			High	Average	Below average	Short
			from 85 to 100	from 70 to 84	from 55 to 69	from 0 to 54
			Rating scale			
			Great	Fine	satisfactorily	unsatisfactory
			passed			not credited
UK-1	UK-1.2.	know:				
		a set of methods for a systems approach to solving assigned problems	He knows at a high levelmetho complexdick system podsteps to solve the assigned tasks	He knows at a good levelcomplex memethodology of a systems approach for solvingachievement of the assigned tasks	Doesn't know well enoughmetho complexdick system podsteps to solve the assigned tasks	Doesn't knowa set of methods for a systematic approach to solvingachievement of assigned tasks
		be able to:				
		use a systems approach to solve problemstasks	He can do it at a high leveluse a systems approach to solve the assigned tasks	He can do it at a good leveluse a systems approach to solve assigned problems	Not good enoughuse a systematic approach to solve the assigned tasks	He can'tuseto take a systematic approach to solvingac

						hievement of assigned tasks
		own:				
		logical methodsinformation processing ladies	Has a high level of logical knowledge of information processing methods	Has a good command of the languagelogical methods aboutinformation worktions	Not proficient enoughlogical methods of information processing	Does not ownlogical skillsusing scientific methods of information processingmatsii
GPC -2	GPC-2.6	know:				
		methods and principles of effective search, critical analysis and synthesis of information, including the use oftemporary instrumentcommentary	At a high level, he knows the methods and principles of effectivenessno search, criticanalysis and synthesis of information, including with the use ofwith modern tools	He knows at a good levelmethods and principles of effective search, critical analysisanalysis and synthesis of information, including using modern instrumentsrumentaria	Doesn't know well enoughmethods and principlesprinciples of effective search, critical analysis and synthesis of information, including the use of modern toolsRiya	Doesn't knowmethods and principles of effectivenessactive search, critical analyticanalysis and synthesis of information, including the use of modern tools
		be able to:				
		search for information, collect and analyze data necessary to solve economic problems, including using modern tools	At a high level, he is able to search for information, collect and analyze data necessary for solving economic problems, including usingwith the use of modern instruments	He can do it at a good levelcarry out information search, collection and analysis of data necessary for solving the assigned economic problems, including	Not good enoughcarry out information search, collection and analysis of data necessary for solving the assigned economic problems, including with the use ofwith the use of	He can'tcarry out information search, collection and analysis of data necessary for solving the assigned economic problems, including

				using modern tools	modern instruments	with the use ofusing withtemporary instrument
		own:				
		ability toclaim and selection of professionally knowninformation, including with the use ofwith the use of modern instruments	Has the ability to do so at a high levelthe ability to search and select professionally significant informationtions, including with the use ofcalling of modernityinstrument	Has a good command of the languagethe ability to search and select professionally significant information, including using modern tools	Not proficient enoughthe ability to search and select professionally significant information, including using modern tools	Does not ownskills, the ability to search and select professionally significant information, including using modern tools

Assessment materials for conducting ongoing monitoring and midterm assessment are provided in the Appendix to the course work program.

A complete set of assignments and materials required for assessing learning outcomes in the discipline is stored at the developer's department.

5. Educational, methodological and informational support of the discipline

5.1. Educational and methodological support

5.1.1. Primary Literature

1. Gaidaenko, A. A., Logistics: a textbook / A. A. Gaidaenko, O. V. Gaidaenko. - Moscow: KnoRus, 2022. - 268 p. - ISBN 978-5-406-10162-9. - URL:https://book.ru/book/944669. — Text: electronic.

2. Kanke A.A., Fundamentals of Logistics: A Tutorial/A.A. Kanke, I.P. Koshevaya. - M.: Knorus, 2020.- 576 p. - (Bachelor's degree). - URL:https://book.ru/book/934213. - ISBN 978-5-406-00334-3.-Text: electronic.

3.Maimakova L.V.,Logistics in implementationMarketing strategy: a tutorial / compiled by L.V. Maimakova, A.A. Derbeneva. – Kazan: KGEU, 2021. - 152 pp. - URL:https://lib.kgeu.ru/. - Text: electronic.

5.1.2.Additional literature

1. Logistics: a course of lectures / L. V. Maimakova. - Kazan: KGEU, 2012. - 115 p. - 4302. - Text: direct.

2. Logistics: a teaching aid for completing practical exercises / compiled by L. V. Maimakova. - Kazan: KGEU, 2012. - 32 p. - 4268. - Text: direct.

3.Sekerin, V.D. Logistics: A Textbook / V.D. Sekerin - Moscow: KnoRus, 2016.

- 240 p. - ISBN 978-5-406-00573-6-L-2016. - URL:https://book.ru/book/920485. — Text: electronic.

4. Fedorov, L. S., General course of logistics. : study guide / L. S. Fedorov, M. V. Kravchenko. - Moscow: KnoRus, 2021. - 218 p. - ISBN 978-5-406-03257-2. - URL:https://book.ru/book/936570. — Text: electronic.

5.2. Information support

5.2.1. Electronic and Internet resources

1.Portal "Open Education".http://npoed.ru

2.A single window for access to educational resources.http://window.edu.ru

5.2.2. Professional databases / Information and reference systems

1. Scientific electronic libraryhttp://elibrary.ru/

2. Federal educational portal "Economics, Sociology, Management".http://ecsocman.hse.ru/

3. Reference system "Consultant Plus"http://consultant.ru/

4. Reference and legal system for the legislation of the Russian Federationhttp://garant.ru/

5.Portal of Federal State Educational Standards of Higher Education.http://fgosvo.ru

7.Electronic library of dissertations (RSL).https://diss.rsl.ru/

8.Official website of the State Duma of the Federal Assembly of the Russian Federation.http://duma.gov.ru/

5.2.3. Licensed and freely distributed software for the discipline

No. p/p	Name of the software provision	Description	Details supporting documents
1	Windows 7 Professional (Pro)	Custom operating system	SoftLineTrade CJSC No. 2011.25486 dated November 28, 2011. Non-excludable right. Indefinitely
2	Office Professional Plus 2007 Windous32 Russian DiskKit MVL CD	A software package containing the necessary office programs	SoftLineTrade CJSC No. 225/10 dated January 28, 2010. Non-excludable right. Indefinitely
3	Chrome Browser	Internet information search system	Free license. Non-excludable right. Indefinitely
4	Firefox browser	Internet information search system	Free license. Non-excludable right. Indefinitely
5	OpenOffice	Office suite	Free license. Non-excludable right. Indefinitely
	1C: Enterprise 8	The software is designed to	IP Valishina No.

		automate accounting and management records, economic and organizational activities of the enterprise	B3C0000641-ЛI from 05/22/2013 Non-excludable right. Indefinitely
	1C: Enterprise 8 Training Package for Higher and Secondary Educational Institutions	Software for the automation of accounting and management records, economic and organizational activities of an enterprise	LLC "BIT Business Solution" No. 21/000608 dated 05.2010 Non-excludable right. Indefinitely
6	LMS Moodle	Software for effective online interaction between teachers and students	Free license. Non-excludable right. Indefinitely

6. Logistics of discipline

Name of the type of academic work	Name of the classroom, specialized laboratory	List of necessary equipment and technical training aids
Lectures	A classroom for conducting lecture-type classes	Specialized educational furniture, technical teaching aids used to present educational information to a large audience (multimedia projector, computer (laptop), screen), demonstration equipment, educational visual aids
Practical classes	A classroom for conducting seminar-type classes, group and individual consultations, ongoing monitoring and midterm assessments	Specialized educational furniture, technical teaching aids (multimedia projector, computer (laptop), screen), etc.
Independent work	Computer class with Internet access B-600a	Specialized educational furniture for 30 seats, 30 computers, technical teaching aids (multimedia projector, computer (laptop), screen), video cameras, software
	Reading room libraries	Specialized furniture, computer equipment with Internet access and access to the electronic information system (EIOS), a screen, a multimedia projector, and software

7. Features of the organization of educational activities for persons with disabilities and disabled people

Persons with disabilities (PWD) and individuals with disabilities have the opportunity to move freely from one educational and laboratory building to another, ascend to all floors of educational and laboratory buildings, and study in educational and other rooms, taking into account the characteristics of their psychophysical development and health status.

Barrier-free access to all classrooms is provided for students with disabilities and those with musculoskeletal disorders. Information on the special facilities created for students with disabilities and those with disabilities is available on the university

website.www//kgeu.ruIt is possible to provide technical assistance through an assistant, as well as the services of sign language interpreters and tactile sign language interpreters.

To adapt reference and educational material on the subject to the perception of persons with disabilities and persons with impaired hearing, the following conditions are provided:

- for better orientation in the classroom, signals are used to announce the beginning and end of the lesson (the word “bell” is written on the board);
- the teacher attracts the attention of a hearing-impaired student with a gesture (a hand is placed on the shoulder and a gentle pat is made);
- when talking to a student, the teaching staff looks at him, speaks clearly, in short sentences, allowing for lip reading.

Compensation for speech and intellectual development difficulties in hearing-impaired students is carried out by:

- the use of diagrams, charts, drawings, computer presentations with hyperlinks commenting on individual components of the image;
- regular use of exercises for graphically highlighting the essential features of objects and phenomena;
- ensuring that students have the opportunity to receive targeted advice via e-mail as needed.

In order to adapt the reference, educational, and awareness-raising material provided by the educational program for the chosen field of study to the perception of individuals with disabilities and visually impaired persons, the following conditions are provided:

- the official website is being adapted to meet the special needs of visually impaired people, and large-font reference information on the schedule of classes is being provided;
- the teaching staff member and his interlocutor (if necessary), who are present at the lesson, introduce themselves to the student, and each time the person to whom the teaching staff member is addressing is named;
- the actions, gestures, and movements of the teaching staff are briefly and clearly commented on;
- printed information is provided in large font (from 18 points) and is fully voiced;
- the required level of illumination of the premises is ensured;
- the opportunity to use computers during classes and the right to record explanations on a voice recorder (at the students’ request) is provided.

The format for ongoing and midterm assessments for students with disabilities is determined by the teaching staff in accordance with the curriculum. If necessary, students with disabilities and those with disabilities, taking into account their individual psychophysical characteristics, are given the opportunity to complete midterm assessments orally, in writing on paper, on a computer, through testing, etc., or are given additional time to prepare their responses.

8. Methodological recommendations for teachers on organizing educational

work with students.

Methodological support for the student development process is one of the defining factors of high-quality education. By demonstrating high professionalism, erudition, a clear civic position, self-discipline, and a creative approach to solving professional problems, university teachers contribute to the development of a well-rounded individual throughout the educational process.

When implementing the discipline, the teacher can use the following educational methods:

- methods of forming personal consciousness(conversation, debate, suggestion, instruction, control, explanation, example, self-control, story, advice, persuasion, etc.);

- methods of organizing activities and forming behavioral experience(task, public opinion, pedagogical requirement, assignment, training, creation of educational situations, training, exercise, etc.);

- methods of motivating activity and behavior(approval, encouragement of social activity, censure, creation of situations of success, creation of situations for emotional and moral experiences, competition, etc.)

When implementing the discipline, the teacher must take into account the following areas of educational activity:

Civic and patriotic education:

- the development of a holistic worldview in students, Russian identity, respect for their family, society, state, spiritual, moral and socio-cultural values accepted in the family and society, for the national, cultural and historical heritage, and the development of a desire to preserve and develop it;

- to develop in students an active civic position based on the traditional cultural, spiritual and moral values of Russian society, in order to increase their ability to responsibly exercise their constitutional rights and obligations;

- development of the legal and political culture of students, expansion of constructive participation in decision-making affecting their rights and interests, including in various forms of self-organization, self-government, and socially significant activities;

- the formation of motives, moral and semantic attitudes of the individual that enable them to resist extremism, xenophobia, discrimination on social, religious, racial, national grounds, interethnic and interfaith intolerance, and other negative social phenomena.

Spiritual and moral education:

- fostering a sense of dignity, honor and honesty, conscientiousness, respect for parents, teachers, and older people;

- the formation of principles of collectivism and solidarity, a spirit of mercy and compassion, and the habit of caring for people in difficult life situations;

- developing solidarity and a sense of social responsibility towards people with disabilities, overcoming psychological barriers towards people with disabilities;

- the formation of an emotionally rich and spiritually elevated attitude towards the world, the ability and skill to convey one's aesthetic experience to others.

Cultural and educational education:

- formation of an aesthetic picture of the world;
- developing respect for the cultural values of one's hometown, region, and country;
- increasing the cognitive activity of students.

Scientific and educational education:

- formation of a scientific worldview in students;
- development of the ability to acquire knowledge;
- development of skills for analysis and synthesis of information, including in the professional field.

Changes and approvals for the new academic year

No. p/p	Section No. of the contribution	Date of entry changes	Contents of the changes	"Agreed" by the Head of the Department implementing the discipline	"Agreed" Chairman of the Institute's (Faculty's) Teaching and Methodological Committee (TMC),
1	2	3	4	5	6
1					
2					
3					

Appendix to the work
discipline program

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EVALUATION MATERIALS
by discipline

B1.M.21 Logistics

Kazan, 2023

Assessment materials for the discipline "Logistics" are intended to evaluate learning outcomes for compliance with competency achievement indicators.

The assessment of learning outcomes in a discipline is carried out within the framework of current monitoring (CM) and interim assessment, conducted using a point-rating system (PRS).

1. Technological map

Semester 3

Section name	Forms and appearance control	Rating indicators							
		I current control	Additional points to TK1	II current control	Additional points for TK2	III current control	Additional points for TK3	Total	Interim assessment
Section 1. Introduction to Logistics	**TK1**	**15**	**0-15**					**15-30**	**15-30**
Interview (SBS)		5	5					10	10
Test (Test)		7	7					14	14
Report (R), message (Sbsh)		3	3					6	6
Section 2. "Functional areas of logistics"	**TK2**			**25**	**0-15**			**25-40**	**25-40**
Practical assignment (PA)				12	7			19	19
Test (Test)				10	5			15	15
Report (R), message (Sbsh)				3	3			6	6
Section 3. "Organization of logistics management"	**TK3**					**15**	**0-15**	**15-30**	**15-30**
Interview (SBS)						5	5	10	10
Test (Test)						7	7	14	14
Report (R), message (Sbsh)						3	3	6	6
									55-100
Midterm assessment (exam)	**OM**								**0-45**
In writing for tickets									0-45

2. Assessment materials for ongoing monitoring and midterm certification

Learning outcomes assessment scale for the discipline:

Code competencies	Code competence indicator	Plan-roved results training in discipline	Level of development competence indicator			
			High	Average	Below average	Short
			from 85 to 100	from 70 to 84	from 55 to 69	from 0 to 54
			Rating scale			

			Great	Fine	satisfactorily	unsatisfactory
			passed			not credited
UK-1	UK-1.2.	know:				
		a set of methods for a systems approach to solving assigned problems	He knows at a high levelmetho complexdick system podsteps to solve the assigned tasks	He knows at a good levelcomplex memethodology of a systems approach for solvingachievement of the assigned tasks	Doesn't know well enoughmetho complexdick system podsteps to solve the assigned tasks	Doesn't knowa set of methods for a systematic approach to solvingachievement of assigned tasks
		be able to:				
		use a systems approach to solve problemstasks	He can do it at a high leveluse a systems approach to solve the assigned tasks	He can do it at a good leveluse a systems approach to solve assigned problems	Not good enoughuse a systematic approach to solve the assigned tasks	He can'tuseto take a systematic approach to solvingachievement of assigned tasks
		own:				
		logical methodsinformation processing ladies	Has a high level of logical knowledge of information processing methods	Has a good command of the languagelogical methods aboutinformation worktions	Not proficient enoughlogical methods of information processing	Does not ownlogical skillsusing scientific methods of information processingmatsii
GPC-2	GPC-2.6	know:				
		methods and principles of effective search, critical analysis and synthesis of information, including the use of modern tools	Has a high level of knowledge of the methods and principles of effective search, critical	He knows at a good levelmethods and principles of effective search, critical analysisan	Doesn't know well enoughmethods and principlesprinciples of effective search, critical analysis and	Doesn't knowmethods and principles of effectiveness activesearch, critical analytican

			analysis and synthesis of information, including the use of modern tools	alysis and synthesis of informatio n, including using modern instrument srumentari a	synthesis of information, including the use of modern toolsRiya	alysis and synthesis of informati on, including the use of modern tools
		be able to:				
		search for information, collect and analyze data necessary to solve economic problems, including using modern tools	At a high level, he is able to search for information , collect and analyze data necessary to solve economic problems, including using modern tools	He can do it at a good levelcarry out informatio n search, collection and analysis of data necessary for solving the assigned economic problems, including using modern tools	Not good enoughcarry out information search, collection and analysis of data necessary for solving the assigned economic problems, including with the use ofwith the use of modern instruments	He can'tcarry out informati on search, collection and analysis of data necessary for solving the assigned economic problems, including with the use ofusing withtemp orary instrumen t
		own:				
		the ability to search and select professionally significant information, including using modern tools	Has the ability to do so at a high levelthe ability to search and select professiona lly significant information tions, including with the use ofcalling of modernityi nstrument	Has a good command of the languageth e ability to search and select profession ally significant informatio n, including using modern tools	Not proficient enoughthe ability to search and select professional ly significant information, including using modern tools	Does not ownskills, the ability to search and select profession ally significan t informati on, including using modern tools

An "excellent" grade is awarded if the student presents the material fully (answers questions) and correctly defines key concepts; for the student's

demonstration of educational material on the topic of practical work, the determination of the relationship between the problem indicators, and the correct solution algorithm; for the correct completion of more than 85% of test assignments; for the correspondence of the report's content to the issue covered, the completeness of the topic covered in the report, the presentation of information in the presentation, correct, reasoned answers to questions on the report; and answers to exam questions.

A "good" grade is awarded if the student presents the material well (answers questions), provides correct definitions of concepts, but contains inaccuracies in the answers; for the student's demonstration of educational material on the topic of practical work, allowing for minor inaccuracies in solving problems while choosing the right solution algorithm; for the correct completion of 70-85% of test tasks; for the correspondence of the content of the report to the issue covered, the completeness of the topic covered in the report, the presentation of information in the presentation, when answering questions on the report, the student made inaccuracies of no fundamental significance; inaccuracies were also made in the answers to the exam questions.

A "satisfactory" grade is awarded if the student presents the material (answers questions) incompletely and makes inaccuracies in defining concepts; if the student has difficulty correctly evaluating the assigned task, provides an incomplete answer that requires leading questions from the instructor (the choice of a solution algorithm is possible with leading questions from the instructor); for the correct completion of 50-70% of test assignments; for the correspondence of the content of the report to the topic covered, but there are logical violations in the presentation of the material, inaccuracies in answering questions on the report; when answering exam questions, the wording is not sufficiently correct, and the sequence in the presentation of the program material is disrupted.

A "fail" grade is awarded to a student if they have significant problems with their knowledge of the core theoretical and practical material, if the content of the questions is not fully covered, if the solution algorithm is incorrectly selected, if less than 50% of the test assignments are completed correctly, if the content of the report does not cover the stated topic, if there are logical errors in the presentation of the material, if significant inaccuracies are present in the answers to the report questions, if the answers to the exam questions demonstrate a lack of knowledge of the program material, or if errors are encountered in the answers.

3. List of assessment tools

Brief description of the assessment tools used for ongoing monitoring of student progress and midterm assessment of the subject:

Name evaluative	Brief description of the assessment tool	Description of the evaluation

means		means
Interview (SBS)	A means of control organized as a special conversation between a teacher and a student on topics related to the subject being studied, and designed to determine the extent of the student's knowledge on a specific section, topic, problem, etc.	Questions on the sections of the discipline
Practical assignment (PA)	A tool for assessing the ability to apply acquired theoretical knowledge in a practical situation. The task is aimed at assessing discipline-specific competencies and contains clear instructions for completion or an action plan.	Set of tasks and assignments
Test (Test)	A system of standardized assignments that allows for the automation of the procedure for measuring the level of knowledge and skills of a student	Set of test tasks
Report (R), message (Sbsh)	A product of a student's independent work, which is a public presentation of the results obtained in solving a specific educational-practical, educational-research or scientific topic	Topics of reports, messages

4. A list of test assignments or other materials necessary for assessing knowledge, skills and abilities characterizing the stages of competence development in the process of mastering the discipline

Examples of tasks

For current control of TK1:

Questions for the complex task TK1.

1. What types of flows are managed in logistics? Provide a brief description of each type of flow.
2. What are the main tasks of supply chain management?
3. Functions, tasks and principles of logistics?
4. Basic concepts of logistics?
5. Classical and systematic approach to organizing material flow?
6. Basic concepts of logistics systems?
7. The concept of information flow?
8. Information support for production?
9. The concept of information flow?
10. Information support for production?

Tests:

Tested competencies: UK-1 (UK-1.2), OPK-2 (OPK-2.6.)

1. The object of research in logistics is ... and the corresponding information flows.

2. Has the strongest influence on the development of logistics.

a) computerization of process management in the areas of production and circulation;

b) improvement of production of certain types of goods;

c) improvement of the tax system;

d) increase in population in the region.

3. A product having a tangible form, considered in the process of applying various logistic operations to it in a given time interval, is called …

4. A production organization system in which parts and semi-finished products are fed from a previous technological operation to a subsequent one as needed (there is no fixed schedule) is called a … system.

5. A sales strategy aimed at the advanced (in relation to demand) formation of inventory in wholesale and retail trade enterprises is called a … system in logistics.

6. Continuous monitoring of the movement and changes of each object in the flow, as well as prompt adjustment of its movement, are manifestations of the principle of… logistics

7. The organization of procurement, transportation, warehousing and wholesale sales as a single logistics process is a manifestation of the principle of… logistics

8. The formation of a developed infrastructure, i.e. all types of support for the movement of material flows in specific conditions, is a manifestation of the principle of… logistics

9. Strengthening the calculation principle at all stages of material flow management is a manifestation of the principle of… logistics

10. The company consistently eliminates all bottlenecks in the logistics chain, which is a manifestation of the principle of… logistics

11. The company's logistics department found that changing the packaging reduced product losses by 7%. This situation is a manifestation of the principle of… logistics.

12. The furniture factory's logistics department, using mathematical modeling methods, developed loading schemes for finished products onto vehicles, maximizing the utilization of the vehicles' cargo capacity. This situation is a manifestation of the principle of… logistics.

13. The logistics department of a wholesale company prepares a schedule for loading vehicles three days in advance. This situation is a manifestation of the principle of… logistics.

14. Conformity:

1. Logistics system control extends to the following functions: customer service, order processing, storage of finished products at the enterprise, finished product inventory management, and long-term planning of the logistics system.	a) Stage 1 of logistics development; b) 2nd stage of logistics development; c) 3rd stage of logistics development; d) 4th stage of logistics development
2. Control of logistics operations from the procurement of raw materials to servicing the end consumer of products.	
3. Companies integrating logistics planning and control processes with marketing, sales, production and finance operations.	
4. The scope of a logistics system typically covers the organization of storage of finished products shipped from the enterprise and their transportation	

15. Decisions on detailing organizational plans
a) organizational decisions;
b) strategic decisions;
c) operational decisions;
d) technical solutions.

16. One of the approaches to creating a model of information flows in production is
a) analysis of the existing management system;
b) synthesis of the control system;
c) analysis of the management model;
d) synthesis of the management model.

17. A network that collects and transmits data on the placement of supplies, their quality control, the condition of loading equipment, the marking and identification of products, and their receipt at the warehouse is an … information network.

18. At the … level of production control, basic information is provided to autonomous subsystems responsible for production, warehousing and transportation.

19. At the … level of production control, autonomous subsystems are combined into a comprehensive information network.
Answer: higher.

20. Logistics that organizes the flow of data accompanying the flow of materials, and that essential link for an enterprise that connects supply, production and sales is called … logistics.

21. Sequence of stages of ABC analysis.

A) Identification of a feature on the basis of which the classification of control objects will be carried out.

B) Formulating the purpose of the analysis;

V)Construction of the analysis curve;

D) Dividing the set of management objects into three groups: Group A, Group B, Group C.

D) Definition of control objects analyzed by the ABC method;

E) Assessment of management objects according to the selected classification feature;

G) Grouping of control objects in descending order of the attribute value.

22. Sequence of stages of XYZ analysis:

A) Plotting the XYZ curve;

B) Dividing the set of control objects into three groups: group X, group Y, group Z;

B) Grouping of control objects in order of increasing variation coefficient;

D) Determination of the coefficients of variation for individual product range items.

Topics of reports (messages):

1. The concept and essence of logistics.

2. Historical origin of the term.

3. Object and subject of logistics.

4. Modern stages of logistics development.

5. Specifics of the logistic approach to managing material flows.

6. The relevance of logistics in today's economic conditions. The economic impact of its use.

7. Conceptual provisions of logistics.

8. Logistics functions.

9. Levels of logistics development and the structure of the enterprise logistics service

10. Functional relationship of logistics with marketing, finance and production planning.

11. Material flows in logistics: concept and types.

For current control of TK2:

Practical tasks:

1. Based on the analysis of the full cost, make a decision on the advisability of purchasing a particular item in city N.

The decision to purchase goods from a geographically remote supplier should be presented as a solution to the four problems proposed below.

1. Calculate additional costs associated with the delivery of 1 m3 of cargo of varying value from city N to Moscow.

2. Calculate the share of additional costs for delivery of 1 m3 of cargo from city N to Moscow in the cost of this cargo.

3. Plot a graph showing the dependence of the share of additional costs in the cost of 1 m3 on the specific cost of the cargo.

4. Using the constructed graph, determine the feasibility of purchasing certain items from company M in city N.

2. Trading company "M" is considered a major intermediary in the wholesale food market. In order to expand into new markets, the company's management decided to open a branch in a neighboring region.

The feasibility of building an in-house warehouse must be determined if the projected annual cargo turnover of the future warehouse is 10,000 tons, and the inventory holding period is 29 days. The proposed construction cost is 1,500,000 USD; fixed costs associated with warehouse operation are 750,000 USD; the cost of handling 1 ton of cargo flow is 0.7 USD per day. The specific load per 1 m^3 of storage space in a rented warehouse is 0.5 t/m^2.

An analysis of the warehouse services market in this region showed that the average cost of using 1 m^3 of cargo space in a rented warehouse is 3.9 USD per day. The warehouse operates 254 working days, not during a leap year. The standard payback period for capital investment is 6-7 years.

3. The turnover of Magdeburg LLC is 6,000 thousand rubles per year. The number of working days per year is 250. Annual inventory holding costs as a percentage of the average inventory value are 19%. The inventory standard was 20 days. Determine how much the annual inventory holding costs will decrease as a result of applying differentiated inventory standards after dividing the product range into groups A, B, and C using the ABC analysis method. Group A – 84% of sales; group B – 12% of sales; group C – 4% of sales. The inventory standard for group A is 5 days; for group B – 10 days; for group C – 20 days.

4. The warehouse's incoming flow is 9,700 tons per year. The share of goods delivered outside of working hours is 15%. The share of goods subject to unpacking at the receiving area is 20%. The share of goods subject to picking is 70%. The centralized delivery level is 40%. The share of delivered goods that cannot be mechanically unloaded is 60%. The share of goods loaded onto vehicles manually is 30%. The frequency of goods handling in the storage area is 2.0. Calculate the total material

flow.

5. Choose a distribution system from the two proposed ones for implementation if the following is known for each system:

- annual operating costs:
  1) 4,320 USD/year;
  2) 5,780 USD/year.
- Annual transportation costs:
  1) 5,560 USD/year;
  2) 4,570 USD/year.
- Capital investments in the construction of distribution centers:
  1) 54,810 USD/year;
  2) 45,750 USD/year.
- Payback period:
  1) 4.8 years;
  2) 4.7 years.

6. Based on the data presented in the table, it is necessary to calculate the total material flow in the warehouse. Designations in the table:

- input material flow – Q;
- the share of goods delivered outside working hours (d1);
- the proportion of goods to be unpacked at the receiving area (d2);
- share of goods subject to assembly (d3);
- share of goods supplied centrally (d4);
- the proportion of delivered goods subject to manual unloading (d5);
- proportion of goods subject to manual loading (d6);
- frequency of processing goods in the storage area (d7).

Table. Initial data

Q	***d1***	***d2***	***d3***	***d4***	***d5***	***d6***	***d7***
6350	26	24	55	55	36	55	2
2050	23	15	64	25	26	52	2
8420	25	30	54	67	42	40	2

7. The Svetoch production association is considering two options for distribution systems that differ in the number of intermediaries included in the system, the type of transport involved in the delivery of material resources, the location of warehouse facilities, etc.

It is necessary to select the most optimal variant of the distribution system if the following indicators are known for each variant:

Зекспл – operating costs for the functioning of the system, USD/year;

Зтранс – transport costs for the delivery of goods between individual enterprises (links) included in the logistics distribution system, USD/year;

КВ – total capital investment in the organization of the distribution system, c.u.e.;

Т – payback period of capital investments, years.

Zexpl, USD/year		Ztrans, standard units/year		KV, USD		T, years	
system 1	system 2	system 1	system 2	system 1	system 2	system 1	system 2
5799	4754	5394	5168	52000	54600	5.8	6.0

8. Using the initial data given in the table, determine:

1. Optimal order size, units.

2. Total costs for storage, transportation and procurement (we do not use discounts), USD/month.

3. Total costs for storage, transportation and purchasing (we use a discount), USD/month.

4. Effect of purchasing at a discount, USD/month (+, -). Conclude on the advisability of using the discount.

Initial data

Turnover for the period	units/month	285
Transportation and procurement costs associated with the placement and delivery of one order	USD/order	210
The share of storage costs in the cost of average inventory	1/month	0.017
Unit price without discount	USD/unit	85
Discounted unit price	USD/unit	84
The size of the lot offered by the seller (to receive a discount)	units	500

9. Assume that a truck with a 20-tonne load capacity and 80 cubic meter capacity is transporting a combination of canned goods and beverages. The amount of cargo transported is presented in the table.

Table. Transportation characteristics

Name of cargo	Quantity of cargo	
	mass, t	volume, m3
Canned goods	14	70
Drinks	5	10
TOTAL	19	80

The company's costs associated with this transportation amounted to 10,000 rubles.

How to correctly calculate costs for canned goods and costs for beverages?

10. A freight manager must determine whether to use road or rail for delivering components from a plant located in Cherepovets to a final assembly facility in Nizhny Novgorod. The production requirement is 150 kits per month. Each kit costs 50,000

rubles. Inventory carrying costs are 20% of the inventory value annually. The characteristics of deliveries by rail and road are presented in the table.

Mode of transport	Transport tariff, RUB/set	Delivery size, sets	Delivery time, days
Railway	400	80	5
Automobile	700	25	3

Tests:

Tested competencies: UK-1 (UK-1.2), OPK-2 (OPK-2.6.)

1. The most important element in procurement policy
a) Market analysis
b) Analysis of the price of purchased goods
c) Demand analysis
d) Sales analysis

2. A procurement method developed in Japan for the purpose of managing supplies in a flow production environment; it takes into account the demand that comes from the final assembly and is called …….

3. A supply method that uses frequent ("fractional") deliveries to dramatically reduce accumulated stocks is called …..

4. A procurement method developed in Japan for the purpose of managing supplies in a flow production environment; it takes into account the demand that comes from the final assembly and is called …….

5. Correspondence:

1. Kanban method 2. Just in time method 3. Forecast indicators method 4. Traditional method 5. Operative method	a) A supply method that results in a sharp reduction in accumulated stocks through frequent ("fractional") deliveries
	b) A supply method in which purchases are made in small lots and frequent deliveries
	c) A supply method developed in Japan for the purpose of managing supplies in a flow production environment; it takes into account the need that comes from final assembly
	d) A supply method in which demand for large quantities of purchases is generated at a certain level and then the specific volume of supplies is adjusted to match the demand
	d) A procurement method in which purchases are made in large quantities with less frequent deliveries

6. A procurement method developed in Japan for the purpose of managing supplies in a flow production environment; it takes into account the demand that comes from the final assembly and is called …….

7. A supply method that uses frequent ("fractional") deliveries to dramatically reduce accumulated stocks is called …..

8. A supply method in which demand for large quantities of goods is generated at a certain level and then the specific volume of supply is adjusted to match the demand is called ……..

9. A procurement method in which purchases are made in large quantities with less frequent deliveries is called ……..

10. A procurement method in which purchases are made in small quantities and in frequent deliveries is called ……

11. Logistics is the process of moving raw materials, components and spare parts from the procurement market to the company's warehouses.

12. Correspondence:

1. Purchases based on quotation sheets 2. Small-lot purchases 3. Purchase of goods with immediate delivery	a) The buyer orders the required quantity of goods, which are delivered to him in batches over a certain period.
	b) A purchasing method widely used where cheap and quickly consumed goods are purchased
	c) A method of purchasing infrequently used goods when it is not possible to obtain them as needed.

13.…… serves as a buffer between transport, production and sales in the logistics system.

14.The period from introduction to replacement with a new, more modern product of similar purpose is called ……

15. The methods of calculating supplies include the definition.
A)economic size of orders;
b) the optimal size of the production batch;
c) need for materials;
d) labor requirements.

16. Tasks related to the implementation of the supply function:
a) what to buy;
b) how much to buy;
c) from whom to purchase;
d) how to pack;
d) how to organize advertising.

17. The time for placing applications and the time for receiving them are the time...

18. Materials procurement process chain:

1. Application preparation →	a) → selection of suppliers → placing orders → analysis of order placement → control over order fulfillment → completion of the purchasing process
	b) → selection of suppliers → order fulfillment → completion of the process;
	V) → analysis of applications → selection of suppliers → placing an order → monitoring order fulfillment → completion of the acquisition process.

19. Competitive bidding is…

20. Lack of quality control in procurement may result in the following costs:
A)costs associated with the return of defective products;
b) lawsuits;
c) stopping production to readjust equipment in case of mass defects;
d) creation of an expert council;
d) additional business trips.

21. The following costs are associated with storing inventory:
A)warehouse rental;
b) transportation costs;
V)costs of paperwork;
d) salary;
d) depreciation of equipment.

22. The following costs are associated with replenishing stocks:
a) transportation costs;
b) costs of document processing;
c) salary;
d) depreciation of equipment.

23. The choice of warehouse location is determined by the method ……

24. Classification features of company warehouses.
a) by purpose, type and nature of stored materials;
b) by type of building, location and scale of activities;
c) by degree of fire resistance.
d) all answers are correct.

25. Correct and complete definition of the warehouse.
a) a device intended for the reception, storage and preparation of material assets for industrial consumption or uninterruptible power supply to consumers.

b) a device for storing products;

c) a device for uninterruptible power supply of material resources to consumers.

d) all answers are correct.

26. The problem of optimizing the location of a distribution warehouse is solved by the method

A)dynamic programming;

b) regression analysis;

c) correlation analysis;

d) "windshield wiper";

d) the conditional center of mass.

27. Warehouse hotline is

A)the most heated area;

b) thermal curtain at the entrance to the warehouse;

c) places close to vacation zones;

d) heating main;

d) line of placement of the most expensive goods.

28. The sequence of stages for selecting the optimal option for a warehouse subsystem of a logistics system. (U)

a) Study of the transport network of the service region, drawing up a diagram of material flows within the logistics system

b) Development of various options for constructing a logistics system: with one or several warehouses located in certain service areas and implementing certain functions.

c) Definition of strategic goals of the logistics system.

d) Selection of one of the developed options for implementation.

d) Calculation of the predicted value of the material flow passing through the system.

e) Preparing a forecast of the required amount of reserves for the system as a whole and for individual sections of the material supply chain.

g) Assessment of logistics costs for each of the options.

29. Costs used to select a strategy for operating warehouse systems.

a) costs associated with the supply and maintenance of inventories;

b) costs of fulfilling customer orders and associated with inventory shortages;

c) costs of collecting and processing data on warehouse system management;

d) answers "a" and "b";

d) answers "a", "b", "c".

30. The object of study of production logistics is ….. enterprises

31. The golden ratio rule is applied in ……..logistics

32. The object of study of production logistics is ……..connections

33. Conformity:

1. FIFO order fulfillment priority rule:	a) "minimum time reserve", the order with the smallest time reserve has the highest priority;
2. LIFO order fulfillment priority rule:	b) "last in - first out", i.e. the highest priority is given to the order that was last entered into the system;
3. SPT Order Fulfillment Priority Rule:	c) "earliest due date" - the order with the earliest due date has the highest priority.
4. MST Order Fulfillment Priority Rule:	d) "the rule of the shortest operation", the highest priority is given to the order with the shortest execution time;
5. EDD Order Fulfillment Priority Rule:	d) "first in, first out", i.e. the highest priority is given to the order that was entered into the system first;

34. The material flow management system …… isinformation support for operational management of material flows based on the "just-in-time" principle

35. The material flow management system ……..– isoptimized production technology.

36. The material flow management system …….. ismaterials requirements planning

38. The material flow management system …….. isresource allocation planning.

38. The material flow management system …….. isjust-in-time management of material and information flows

39.Production, information, capital investment – this is an indicator of ……

40. At the production stage, the main goals of logistics are:
a) minimizing production costs;
b) increasing the level of finished product inventories;
c) purchasing raw materials at minimum prices;
d) minimization of technological routes;
d) minimizing equipment downtime;
e) minimizing the shelf life of work items.

41. Production logistics examines the processes occurring in the area of…....production.

42. The essence of the main goal of production logistics is:
a) ensuring timely delivery of products in accordance with contracts;
b) ensuring complete delivery of products in accordance with contracts;

c) minimizing product storage costs.

43.The 80-20 rule applies in ……logistics

44. Conformity:

a. The essence of the 80-20 rule for group C products:	a) require strict control and accounting
b. The essence of the 80-20 rule for group B products:	b) require routine control and well-established accounting and constant attention
c. The essence of the 80-20 rule for Group A products:	c) require routine monitoring by periodic checking of stock levels
	d) do not require any control

45. Just-in-time management of material and information flows is…….of the market.

46. Distribution channel of goods isa collection of organizations or individuals that accept or transfer ownership of a product or service from ……..… to the consumer.

47. The number of intermediaries is called …….distribution channel.

48. A channel consisting of a manufacturer and intermediaries acting as a single system under a single management is called…..…..a distribution channel.

49. Sequence of operations of market research: (U)
A – information need analysis;
B – problem statement;
B – receiving information;
G – information transfer;
D – search for information sources;
E – information processing.

a) A → B → D → G → C → E;
b) B → A → D → C → E → G;
c) A → D → C → B → E → D.

50. Inventory control system is the rule…….

51. Acts on its own behalf and at its own expense ……

52. Acts on behalf of someone else at his own expense ……...

53. Acts on behalf of someone else at someone else’s expense …….

54. The purpose of the logistics distribution system is…….of goods

55. In a system with a fixed stock size, the controlled parameter is……

56. The principle of high adaptability of the logistics system to specific consumer needs...

57. Channels consisting of a producer and one or more intermediaries acting as a single system are called…….

58. The form of existence of a material flow is called……..

59. Stocks intended for production consumption, which must ensure the uninterrupted production process, are called……..

60. The stocks necessary for the uninterrupted supply of material resources to consumers are called …….

61. Stocks that ensure continuity of supply of the production process between two deliveries are called …….

62. Stocks allocated from production stocks when additional preparation is required before use in production are called ……

63. Stocks intended for continuous supply to the consumer in case of unforeseen circumstances are called…….

64. Stocks that are formed due to the seasonal nature of production of products, their consumption or transportation are called …….

65. The balance of material resources at the end of the reporting period is called ……..

66. The stock level at which the next order is placed is called…….

67. Equipment that is repeatedly used on one or more types of transport, intended for the transportation or temporary storage of goods, equipped with devices for mechanized installation and removal from vehicles, having a permanent technical characteristic and a volume of at least 1 cubic meter - this is ...

68. A trailer body of a vehicle, adapted for transportation along with cargo on railway platforms, is…

69. The elements that make up the tariff are ……

70. Economic categories that determine price movements on the market are ……

71. Raw materials and manufactured products accepted by transport for transportation are called ……..

Topics of reports (messages):

1. Tasks and functions of procurement logistics.
2. Selecting a supplier for the company.
3. Just in time operational supply method.
4. Procurement planning: Analysis, determination of needs and calculation of the quantity of materials to be ordered.
5. Determination of the procurement method.
6. Legal basis for procurement.
7. Payment for deliveries.
8. Warehousing logistics.
9. Classification of warehouses.
10. Basic concepts of warehouse activities.
11. Logistics process in the warehouse.
12. Containers and packaging in warehousing logistics
13. Warehouse planning
14. Tasks and functions of production logistics
15. Material flow management.
16. Organization of material flows.
17. Material flow management systems (MRP; DRP; JIT; KANBAN; OPT.
18. Objectives, tasks and functions of distribution logistics.
19. Distribution channels of goods.
20. Logistics distribution intermediaries.
21. Planning the distribution of goods. Organization of the distribution system.
22. The concept of material stock.
23. Inventory control system
24. Determining the optimal order size
25. The essence, principles and functions of transport logistics.
26. Types of freight transportation. Advantages and disadvantages of individual modes.
27. Transport and logical chains, information support.
28. Definition, main issues of customs logistics.
29. Regulatory framework for international transport.
30. Tariff and non-tariff regulation.
31. Customs procedures.

For current control of TK3:

Questions for the complex task TK3.

1. What is a logistics service and its quality level?
2. Composition of after-sales logistics services.
3. The procedure for forming a logistics service system.
4. Why do companies need to focus on improving the quality of their logistics services in today's environment?
5. What does consumer demand service consist of?
6. What are the areas for improving the quality of logistics services related to improved resource utilization, efficiency and differentiation?
7. What are the goals and objectives of logistics in customer service quality management?
8. What are the areas of interaction between logistics and marketing in the process of managing logistics services?
9. What are the principles for developing customer service policies from a logistics perspective?
10. Provide a classification of marketing strategies that allows identifying logistical factors of customer service.

Tests:

Tested competencies: UK-1 (UK-1.2), OPK-2 (OPK-2.6.)

1. The provision of logistics services does NOT include:
A)selection of product range;
b) formation of cargo units;
c) ensuring the safety of cargo during transportation;
G)selection of supplier.

2. Quality criteria for logistics services:
A)reliability of supply;
b) order fulfillment time;
d) place of order fulfillment;
d) availability of stock in the warehouse;
e) the possibility of providing a loan.

3. Work that involves providing services, i.e. satisfying someone's needs, is called……..

4. Logistics service can be provided...
a) the manufacturer of the product;
b) a freight forwarding company;
c) supplier;
d) a trading organization.

5. Establish the sequence of logistics services:

A – determining the list of services that are most significant for the buyer;

B – segmentation of the consumer market, i.e. its division into specific groups of consumers;

B – ranking of services;

G – ranking of services;

D – assessment of services, establishing correspondence between the level of service and its cost;

E – establishing feedback with customers.

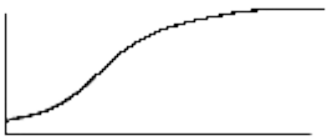
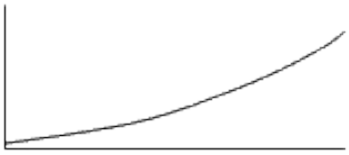
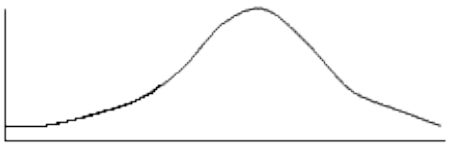
a) G → C → D → A → B → E;
b) B → A → G → C → D → E;
c) B → C → D → B → A → E.

6. Ranking of services is carried out by the method of.....analysis

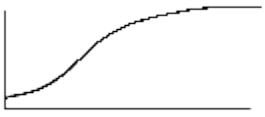
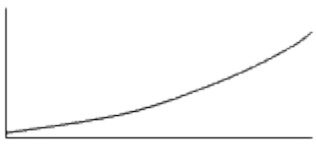
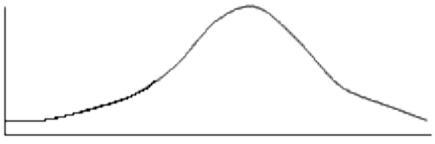
7. The criteria for quality of logistics service do NOT include...
a) reliability of supply;
b) delivery time;
c) product quality;
d) the possibility of providing loans.

8. The criteria for the quality of logistics services include:
A)flexibility of supply;
b)order fulfillment time;
c) provision of spare parts;
d) price flexibility;
d) reliability of supply.

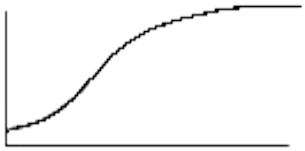
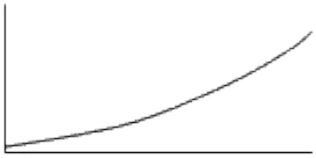
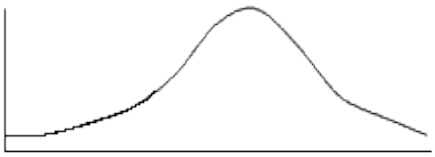
9. The dependence of profit on the service level is characterized by the graph...

A)  b)  V) 

10. The dependence of sales revenue on service level is characterized by the graph...

A)  b)  V) 

11. The dependence of logistics costs on the service level is characterized by the graph...

A)  b)  V) 

Topics of reports (messages):

1. Concept and system of logistics service.
2. Level of logistics services.
3. Criteria for the quality of logistics services.
4. Organization of logistics management.
5. Contents and objectives of logistics management.
6. Functions of logistics management.
7. Material flow management mechanism.
8. Organizational structures of the management system.
9. Improving material flow management.
10. Control in logistics.

For interim assessment:

Examples of exam questions:

1. The concept and essence of logistics
2. Functions and tasks of logistics.
3. Factors and trends in logistics development.
4. Principles of logistics.
5. Basic concepts of logistics systems.
6. Design of logistics systems.
7. Information support in logistics.
8. Basic concepts of information logistics.
9. Tasks and functions of purchasing logistics.
10. Basic principles of needs determination.
11. Selecting a supplier for the company.
12. The mechanism of functioning of procurement logistics
13. The method of operational supply "Just in time".
14. Procurement planning: Analysis, determination of needs and calculation of the quantity of ordered materials.
15. Determination of the procurement method.
16. Documentary registration of the order.
17. Purchasing and organizing our own production.
18. Checking the quality and quantity of the received products.
19. Selecting a supplier Receiving and evaluating proposals.
20. Basic requirements for selecting a supplier.
21. Legal basis for procurement.
22. Payment for deliveries.
23. Warehousing logistics.
24. Classification of warehouses.

25. Basic concepts of warehouse activities.
26. Logistics process in the warehouse.
27. Warehouse documentation.
28. Containers and packaging in warehousing logistics
29. The main stages of creating a warehousing system
30. Planning of warehouse facilities
31. Selecting the location of warehouse systems
32. Tasks and functions of production logistics
33. Material flow management.
34. Organization of material flows.
35. Form of organization of movement of material flows.
36. Material flow management systems (MRP; DRP; JIT; KANBAN; OPT).
37. Calculation of the duration of the production cycle of a product.
38. Objectives, tasks and functions of distribution logistics.
39. Distribution channels of goods.
40. Logistics distribution intermediaries.
41. Rules of distribution logistics.
42. Distribution systems of goods.
43. Planning the distribution of goods. Organization of the distribution system.
44. Distribution channels.
45. The concept of material stock.
46. Types of material stocks.
47. Inventory rationing.
48. Determining the optimal size of the ordered batch
49. Cost dependence on order size.
50. The essence, principles and functions of transport logistics.
51. Basic concepts of transportation and freight forwarding.
52. Types of freight transportation. Advantages and disadvantages of individual modes of transport.
53. Delivery and distribution systems.

54. Definition, main issues of customs logistics.

55. Regulatory framework for international transport.

56. Forms of payment.

57. Delivery bases.

58. Tariff and non-tariff regulation.

59. Customs procedures.

60. The concept of service in logistics.
61. Logistics service system.
62. Material flow management mechanism.

63. Control in logistics.