

**Al-Farabi Kazakh National University
Higher School of Economics and Business
Department of Business technologies**

**PROGRAM AND GUIDELINES FOR THE FINAL EXAM
IN THE DISCIPLINE**

TGS 3310«Transport and freight system»

*(name of the discipline according to the curriculum
curriculum code)*

bachelor towards in **5B090900 «Logistics» (by industry)**

3rd course rus and kaz departments

*(code and name of the educational program in the framework of which the
discipline is implemented)*

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The program and guidelines for the final exam in the discipline «Transport and freight system» were reviewed and approved at a meeting of the department "Business technologies"

Protocol № 26 from "09" March 2021

Introduction

Based on the results of training, a final exam in the form of traditional writing exam is held at the end of 15 weeks in advance.

WRITING EXAM: TRADITIONAL ANSWERS TO QUESTIONS will be at held at onlinesystem “Oqylyq”. The exam format is synchronous.

The discipline «Transport and freight system» was taught for the 3th year students of the specialty 5B090900 Logistics» (by industry). The results of theoretical and practical knowledge obtained from study are carried out in **writing exam** form in the online system “**Oqylyq DES**”. Written exam-according to the exam schedule, the student takes the exam on the online platform («OQYLYQ DES») on the tool for filling out the answers to the questions of the automatically generated exam ticket. The exam is controlled by an automatic proctoring system or Proctor (detailed information about the «Oqylyq DES» platform is provided at the end of the program).

Topics for which exam items are compiled:

1. Transport and cargo systems in supply chains
2. Structure and functions of transport logistics systems.
3. The importance of loading and unloading machines.
4. Lifting machines as a part of transport systems.
5. Transport and cargo complexes for perishable goods.
6. Technical tools for transport and cargo systems.
7. Systematic approach to the organization of cargo transportation
8. Mechanized and automated warehouses.
9. Automation of management of transport vehicles.
10. Transport complexes for package and piece loads
11. Organization of loading and unloading and transport and storage operations based on logistics principles.
12. Automation of document flow and accounting of goods in warehouses
13. Transportation routing. Types of routes. Freight stations and terminals
14. Fundamentals of designing transport complexes.
15. Economic feasibility studies in the design of transport and cargo complexes

To pass the exam, as a result of studying this discipline, the student will be able to:

- substantiate the basic concepts, theoretical provisions and categories in the field of mechanization of handling and storage operations for operational and long-term planning of the terminal systems;
- substantiate the principles of logistics which should be followed when creating transport and cargo systems;
- classify transport and cargo complexes based on types of transport and characteristics of goods;
- classify the device, principles of operation and technical and operational characteristics of the main machines used in transport and warehouse complexes (TSK);
- substantiate the basic conditions for the preparation, transshipment, storage and transportation of various goods by rail, road and water transport
- to streamline the main means of mechanization of handling and storage operations for goods of various nomenclature and physical and mechanical properties based on kinematic parameters;
- simulate logistics systems and perform calculations for making management decisions for various types of transport;
- apply modern and promising technological processes for the processing of various goods in warehouses, systems of loading and unloading machines and equipment based on the determination of the required amount of technical means;
- calculate the main parameters and planning the work of transport and cargo systems
- select the type, technical equipment and determine the main parameters of a complex mechanized and automated warehouse at a railway station, on the access roads of enterprises and organizations on the basis of real cargo flows and station operation technology
- to compare the main indicators characterizing the operation and development of transport systems: indicators of technical equipment, network development, transportation, technical and operational work;
- to evaluate the effectiveness of the applied handling and warehouse technological processes based on the analysis of a set of technical, operational and economic indicators
- perform calculations of the main parameters of transport and cargo complexes;
- to evaluate the effectiveness of the use of various options for complex mechanization and automation of loading and unloading operations for given conditions, including during reconstruction, examination of projects of warehouses, points of loading and unloading goods at stations and organizations;
- analyze the work of loading and unloading fronts on access roads and develop measures to improve their functioning in order to improve the performance of the station;

- analysis of the state and dynamics of quality indicators of systems for organizing the transportation of passengers, cargo, cargo luggage and baggage using modern research methods;
- optimize the use of the throughput and processing capacity of transport infrastructure, technical means and advanced technologies in order to reduce the cost of transportation, ensure their efficiency;
- apply calculation formulas for determining the geometric dimensions of the warehouse, the length and throughput of cargo fronts;
- to plan loading and unloading operations at stations and terminals to ensure comprehensive automation of reloading processes, as well as to reduce the downtime of wagons during cargo operations and ensure the safety of goods based on the use of high-performance machines and devices, automation equipment and computers;
- draw up transportation plans, schedules of movement of vehicles, goods - transport, warehouse, and other documents;
 - development of generalized solutions to the problem, analysis of these options, forecasting the consequences, finding compromise solutions in conditions of multi-criteria, uncertainty;;
- to create models of the processes of functioning of transport and technological systems and traffic flows based on the principles of logistics, allowing to predict their properties;
- development of economically feasible proposals for the development and reconstruction of transport hubs based on specialization by types of communications, the use of new technical means, automated control systems, improvement of technological processes;
 - design technological reloading and warehouse processes at enterprises and retail chains based on an economic feasibility study

Topics for which questions will be compiled:

- 1. Transport and cargo systems in supply chains** Principles of logistics in supply chains.
- 2. Structure and functions of transport logistics systems.** Systematic approach to the organization of transportation and the concept of logistics.
- 3. The importance of loading and unloading machines.** Purpose and classification of loading and unloading machines..
- 4. Lifting machines as a part of transport systems.** Purpose, classification and scope of lifting machines.
- 5. Transport and cargo complexes for perishable goods.** Conditions for the transportation and storage of perishable goods.
- 6. Technical tools for transport and cargo systems.** Purpose and classification of technical equipment of transport systems.
- 7. Systematic approach to the organization of cargo transportation**
Production and transport logistics systems
- 8. Mechanized and automated warehouses.** The structure and organization of work of modern warehouses.
- 9. Automation of management of transport vehicles.** The concept of automation of production processes.
- 10. Transport complexes for package and piece loads** Transport and cargo complexes for bulk and dry bulk cargoes of closed storage. Methods of transportation and storage of package goods and piece-cargo.
- 11. Organization of loading and unloading and transport and storage operations based on logistics principles.** Tariffs and calculation of freight charges.
- 12. Automation of document flow and accounting of goods in warehouses.**
Transport and shipping documents
- 13. Transportation routing. Types of routes. Freight stations and terminals.**
Calculating the number of routes, drawing up a routing schedule and determining the efficiency of route transportation
- 14. Fundamentals of designing transport complexes.** The composition of the project of the transport and cargo complex.
- 15. Economic feasibility studies in the design of transport and cargo complexes.** Calculation of loading and unloading fronts

Rating system using alphabetic characters

Academic achievements (knowledge, abilities, skills and competencies) of students are assessed in points on a 100-point scale corresponding to the internationally accepted letter system with a digital equivalent (positive marks, in descending order, from "A" to "D" (100- 50), and "unsatisfactory" - "FX" (25-49), "F" (0-24), and marks according to the traditional system. The mark "FX" is given only for the final exam. Note:

Criteria assessment:

Letter Grade	Grade Point Value	Percentage	Conventional Grade
A	4,0	95-100	Excellent
A-	3,67	90-94	
B+	3,33	85-89	Good
B	3,0	80-84	
B-	2,67	75-79	
C+	2,33	70-74	Satisfactory
C	2,0	65-69	
C-	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	Failure
FX	0,5	25-49	
F	0	0-24	

Summary assessment: The final grade for discipline is calculated using the following formula: $(PK1+MT+PK2/3) \times 0,6 + (ИЭ \times 0,4)$.

Evaluation	Criteria:
Excellent	<ol style="list-style-type: none"> 1. Correct and complete answers to theoretical questions; 2. The practical task is completely solved; 3. Materials are presented competently, in accordance with the logical sequence; 4. Creative abilities are shown.
Good	<ol style="list-style-type: none"> 1. Theoretical questions are correct, but incomplete answers, insignificant errors or inaccuracies; 2. The practical task is performed, but there is a small error; 3. Materials are made logically.
Satisfactory	<ol style="list-style-type: none"> 1. Answers Theoretical questions are mostly correct, but incomplete, inaccuracies and logical errors; 2. The practical task is incomplete; 3. The material is literate, but the logical sequence is not provided.
Failure	<ol style="list-style-type: none"> 1. The answer contains gross errors related to theoretical questions; 2. The practical task is not performed; 3. Grammatical and terminological errors were made in the answer, the logical sequence was not observed.

Recommended study references for exam preparation:

Literature:

1. Zhuravlev N.P., Malikov O.B. Transport and cargo complexes: Textbook. allowance. - M.: Route, 2016. -- 232 p.
2. Boyko N.I., Cherednichenko S.P. Transport and cargo systems and warehouses: textbook / N.I. Boyko, S.P. Cherednichenko. - Rostov n / a.: Phoenix, 2007. -- 400 p.
3. Transport and cargo systems. Textbook / A.S. Balalaev, I.A. Baburova, A. Yu. Kostenko. - Khabarovsk: Publishing house of FVGUPS, 2015. -- 101 p.
4. Complex mechanization and automation of loading and unloading operations: Textbook / Ed. Timoshina A.A. and Machulsky I.I. - M.: Route, 2013. - 400 p.

Internet resources:

1. Abdikerimov, G.S. Logistic management of cargo transportation and terminal and warehouse activities [Text]: A textbook for specialists / G.S. Abdikerimov, S.Yu. Eliseev, V.M. Nikolashin, A.S. Sinitsyna, O.B. Malikov // M: FGBOU "Educational-methodical / center for education in railway transport". - 2013. -- 428 p. <https://e.lanbook.com/reader/book/59016/#1>
2. Balalaev A.S., Leontiev R.G. Transport and logistics interaction in multimodal transportation: monograph. - M.: FGBOU "Educational-methodical center for education in railway transport", 2012. - 268 p. - <http://e.lanbook.com/view/book/58896/page58/>
3. Design of loading and unloading devices and warehouses: Method. instructions / compiled by V.A. Bolotin, E.K. Korovyakovsky, N.G. Yankovskaya. - SPb.: FSBEI HPE PGUPS, 2015. - 38 p.

WRITTEN EXAM OQYLYQ DES

The student must answer all the questions asked during the exam.

EXAMINATION PROCEDURE

IMPORTANT NOTE The exam is held according to a schedule known to students and teachers.

There is a time limit. The duration of the exam is 2 hours.

A STUDENT

1. Open the page <https://univer.kaznu.kz/> in the browser (Google Chrome is recommended).
2. Log in to Univer with your login and password.
3. In the "Bachelor" / "Master" section, the Office 365 login is your login to access the Textbook system.
4. Open the "Student Questionnaire" section of the Univer system - ID is your password for access to the Textbook system.
5. After determining the login and password, click Oqylyq on the Univer link panel or type <https://app.oqylyq.kz> on the new page.
6. Log in to the "Textbook" using the received login and password.

PAY ATTENTION. You can work with the application from a mobile device or computer.

IT IS IMPOSSIBLE TO TAKE THE EXAM WITHOUT ACCESS TO THE MICROPHONE AND CAMERA.

7. Double-click the name of the list to start the exam.
8. Access the camera and microphone, as well as screen recording. After following the on-screen instructions, go through the identification (move your head closer, turn left, then right).
9. After identification it is necessary to get acquainted with the characteristics of the exam. The description indicates the duration of the exam and the allowed materials.

ATTENTION. If the description does not specify additional materials, then you can only use the keyboard and mouse to work in the **Oqylyq** editor during the exam. It is forbidden to open other tabs, run other programs, use your phone, other devices and items, including dictionaries, calculators, e-books, and so on.

If the use of unauthorized materials or other hints is detected by the student, or identification marks (such as the student's full name, special symbols and symbols) are left in the student's work, the exam may be canceled.

1. After clicking on the "start" button, you can start taking the exam.
 - * The answer is made by entering text from the keyboard in the program editor
 - You can answer questions in any order.
 - To send a response, click the "Send" button for each question.
 - You can make changes to already submitted answers throughout the exam.
2. To complete the exam, click the "Finish" button. After the end of the exam time or after clicking the "Finish" button, you can not edit the answers.

IMPORTANT NOTES

1. It is recommended to click on the "Send" button more often to save the typed text.
2. If you have problems with the Internet, you can re-enter the program and continue the exam. In this case, no additional time is given. The maximum time of absence from the exam for technical reasons is 20 minutes. If it is exceeded, a decision will be made to cancel the work or postpone the exam to another day, depending on the circumstances.
3. If the exam time is over and you don't have time to submit your answer, an empty answer will be sent.
4. On the exam, the absence of you at the device or the withdrawal of your gaze away from the screen is recorded. Therefore, if there is an urgent need for such actions, you should loudly and clearly state the reason. The decision to fix the violation will be made by the inspector based on the video recording.

For more information about "INSTRUCTIONS FOR STUDENTS on the Oqylyq platform", you can also visit the website of the Al-Farabi Kazakh National University at the following link:

<https://www.kaznu.kz/content/files/pages/folder22185/app.oqylyq.kz%20%D1%81%D1%82%D1%83%D0%B4%D0%B5%D0%BD%D1%82%D1%8B%20%D0%BA%D0%B0%D0%B7.pdf>