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

ONLINE MODE ON DISCIPLINE
ON SEMINAR
METHODICAL RECOMMENDATIONS
for laboratory classes
«Design of Logistics Systems»

for autumn semester 2021-2022
specialty: Logistics
course: 4

Almaty, 2021

General recommendations for conducting laboratory classes: To prepare for labs it is necessary to know the lecture material and familiarize yourself with the recommended basic and additional literature, as well as prepare for the tasks listed in these methodological instructions for labs in accordance with the topic of the lesson. A detailed plan, tasks and recommendations for conducting seminars are described below.

1 Lab - discussion. The ways of designing logistics systems (1st week).

Purpose of the seminar: to form students' ability to substantiate the role of designing logistics systems.

Form of conduct: web-based lesson on the ZOOM platform**.**

Task: familiarization with new terms and definitions, comparison of the characteristics of the elements of logistics systems.

Recommendations: Pre-familiarize yourself with the main objectives and functions of logistics and study the characteristics. After comparative analysis, draw short conclusions.

Questions for discussion: Definition, scope, object, features, functions and organization of logistics systems.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014

2 Lab - discussion. Comparing logistics operations that helps to design systems (2nd week).

Purpose of the seminar: investigate logistics operations and implementing them in different cases

Form of conduct: web-based lesson on the Zoom platform.

Task: description of each operation of logistics with specific example.

Recommendations: Pre-familiarize yourself with the main stages of logistics and compare their tools. Then assess the resources and skills required for each step.

Questions for discussion: The conceptual basis of logistics management. Basic operations. Complex and auxiliary operations of logistics.

Evaluation criteria: max 10

Resources:

1. Logistics and supply chain management, M. Christopher, 2014
2. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.
3. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

3 Lab–business game. Defining the functions and methodology of strategy building in logistics systems (3rd week).

Purpose of the seminar: to form students' ability to determine the impact of optimal strategy on logistics operations.

Form of conduct: web-based lesson on the Zoom platform.

Task: analyze the main strategies that affect decision making in logistics. Give examples.

Recommendations: Become familiar with the essence of procurement logistics affecting the organization's logistics performance in advance. After that, evaluate the influence of these factors on logistics activity.

Questions for discussion: Components of procurement logistics. Implementing procurement logistics practice in local and foreign companies.

Evaluation criteria: max 10

Resources:

1. Logistics and supply chain management, M. Christopher, 2014
2. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.
3. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

4 Interactive lab. Modern technologies of production logistics (4th week).

Purpose of the seminar: to form students' skills in using logistic technologies and innovative tools.

Form of conduct: web-based lesson on the Zoom platform.

Task: comparative assessment of technologies in logistics.

Recommendations: Familiarize yourself with the basic technologies of logistics used in production. After that, evaluate the advantages and disadvantages of each technology when applying it in logistic activity.

Questions for discussion: Technologies in logistics. TQM management. Kanban methodology. ERP systems.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

5 Interactive lab. Modern technologies of production logistics (5th week).

Purpose of the seminar: to form students' skills in using logistic technologies and innovative tools.

Form of conduct: web-based lesson on the Zoom platform.

Task: comparative assessment of technologies in logistics.

Recommendations: Familiarize yourself with the basic technologies of logistics used in foreign companies. After that, evaluate the advantages and disadvantages of each technology when applying it in logistic activity.

Questions for discussion: Technologies in logistics. TQM management. Kanban methodology. ERP systems..

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

6 Interactive lab. Foreign technologies of quality control (6^{th} week).

Purpose of the seminar: to form students' skills in applying warehousing and material handling methods; selection of the most optimal method in specific cases.

Form of conduct: web-based lesson on the Zoom platform.

Task: critical analysis of warehousing methods in specific situations

Recommendations: Pre-familiarize yourself with the basic methods of warehousing and packaging. Then evaluate the advantages and disadvantages of each method by comparing their tools.

Questions for discussion: Differences between warehousing techniques. Applying methods of material handling in different cases.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

7 Lab. Identifying optimal models for applying in logistics (Week 7).

Purpose of the seminar: to form students' skills to identify optimal models for delivering goods.

Form of conduct: web-based lesson on the Zoom platform.

Task: study of the main criteria of choosing optimal channel.

Recommendations: Read the basic parameters of distribution channels. Then, explore the activities and role of global channels.

Questions for discussion: Basic distribution rules. The consequences of choosing wrong channels. The role of intermediaries and wholesalers.

Evaluation criteria: max 10

Resources:

1. Logistics and supply chain management, M. Christopher, 2014
2. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

3. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

8 Lab discussion - Optimal distribution channels (Week 8).

Purpose of the seminar: to form students' ability to classify transports and choose the most optimal type in specific situations.

Form of conduct: web-based lesson on the Zoom platform.

Task: describe modern types of distribution channels.

Recommendations: Pre-familiarize yourself with the basic types of channels. Then evaluate the convenience and efficiency of each channel for delivering goods.

Questions for discussion: Types and groups of transport. Features and characteristics of each type. Methods and tools applicable to each group of transport.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

9 Lab discussion - Optimal distribution channels (Week 9).

Purpose of the seminar: to form students' ability to classify transports and choose the most optimal type in specific situations.

Form of conduct: web-based lesson on the Zoom platform.

Task: describe modern types of distribution channels.

Recommendations: Pre-familiarize yourself with the basic types of channels. Then evaluate the convenience and efficiency of each channel for delivering goods.

Questions for discussion: Types and groups of transport. Features and characteristics of each type. Methods and tools applicable to each group of transport.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

10. Lab discussion Logistics service in the organizational structure of the enterprise (Week 10).

Purpose of the seminar: to form students' ability to classify logistics service and choose the most optimal in specific situations.

Form of conduct: web-based lesson on the Zoom platform.

Task: describe modern types of transport.

Evaluation criteria: max 10

Recommendations: Pre-familiarize yourself with the basic types of logistics service. Then evaluate the convenience and efficiency of each service for delivering goods.

Questions for discussion: Types and groups of logistics service. Features and characteristics of each type. Methods and tools applicable to each group of service.

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003

11 Lab - game. Tools and techniques of global logistics (Week 11).

Purpose of the seminar: to form students' ability to use global logistics service management in an enterprise.

Form of conduct: web-based lesson on the Zoom platform.

Task: identify the basic techniques and methods of service logistics.

Recommendations: Familiarize yourself with the basic methods of service logistics. Then use one of these techniques.

Questions for discussion: Basic characteristics of global logistics. Characteristics of global delivery. Mistakes in global logistics service.

Evaluation criteria: max 10

Resources:

1. Logistics and supply chain management, M. Christopher, 2014
2. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.
3. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

12 Interactive Lab. Justifying the role of Kazakhstan in the development of worlds transport corridors (Week 12).

Purpose of the seminar: to form students' ability to solve problems by using knowledge about transport corridors in logistics.

Form of conduct: web-based lesson on the Zoom platform.

Task: learn to apply logistics models.

Recommendations: Review the basic criteria in logistics modeling. Then apply the identified criteria for solving logistics problems.

Questions for discussion: Basic transport corridors**.** Classification of logistics models. Participant and non-participant modeling of transport corridors.

Evaluation criteria: max 10

Resources:

1. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

2. 4. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

13 Lab – game. Methods and techniques of digitalization of logistics (Week 13).

Purpose of the seminar: to form students' ability to analyze external factors for implementing digital logistics.

Form of conduct: web-based lesson on the Zoom platform.

Task: identify the main techniques and methods for transporting globally.

Recommendations: Become familiar with the basic methods of digitalization. After that, analyze the foreign experience of global logistics.

Questions for discussion: Digital logistics. Digital transporting. International shipment.

Evaluation criteria: max 10

Resources:

1. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.
2. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

14 Interactive Lab. Modern technologies in logistics (Week 14).

Purpose of the seminar: to form students' ability to apply the results of using new technologies of logistics

Form of conduct: web-based lesson on the Zoom platform.

Task: prepare a case of using any technology for applying in domestic logistics company.

Recommendations: Become familiar with the modern technologies in logistics. Then prepare a plan for using some of them on the example of chosen company.

Questions for discussion: Technologies of logistics. Innovative models. Applying the tools of new technologies for planning and implementing in domestic comanies.

Evaluation criteria: max 10

Resources:

1. Logistic. Book and workshop / Nerush Yu, A. Nerush 2016.
2. Logistics and supply chain management, M. Christopher, 2014
3. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.
4. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.

15 Lab. Applying information logistics for evaluating and controlling quality (Week 15).

Purpose of the seminar: to form students' ability to use information control systems to analyze the data obtained.

Form of conduct: web-based lesson on the Zoom platform.

Task: define the basic requirements for entering quality control systems and methods.

Recommendations: Pre-familiarize yourself with the main provisions and approaches to the quality control. Then describe the necessary conditions and tools for conducting quality control activities.

Questions for discussion: Techniques of quality control. Conditions of introduction of quality monitoring systems. Errors in carrying out quality control technologies.

Evaluation criteria: max 10

Resources:

1. A.I. Semenenko, V.I. Sergeev, Logistics. Basic theory, M .: 2003.

2. Strategic management of logistics, Textbook / James R. Stock, Douglas M. Lambert, 2005.