**MINISTRY OF EDUCATION AND SCIENCE,
YOUTH AND SPORTS OF UKRAINE**

KHARKIV NATIONAL UNIVERSITY OF ECONOMICS

Syllabus
of the educational discipline
"LOGISTICS"

**for students of study direction
6.030601 "Management"
for all forms of learning**

Харків. Вид. ХНЕУ, 2012

Затверджено на засіданні кафедри менеджменту та бізнесу.
Протокол № 1 від 25.08.2011 р.

Compiled by: T. Lepeyko
O. Mazorenko

S98 Syllabus of the educational discipline "Logistics" for students of study direction 6.030601 "Management" for all forms of learning / compiled by T. Lepeyko, O. Mazorenko. – Kh. : Publishing House of KhNUE, 2012. – 36 p. (English)

Thematic plan of the educational discipline in modules and themes is presented. The syllabus contains plans for lectures and seminars (practices), questions for independent training, the criteria for estimating students' knowledge.

It is recommended for students of direction 6.030601 "Management".

Подано тематичний план навчальної дисципліни за модулями та темами, вміщено плани лекцій і семінарських (практичних) занять, запитання для самостійної роботи, критерії оцінювання знань студентів.

Рекомендовано для студентів напряму підготовки 6.030601 "Менеджмент".

Introduction

Logistics is a key to modern economy. Almost every organization faces the problem of getting the right materials to the right place at the right time. Increasingly competitive markets are making it imperative to manage logistics systems more and more effectively.

Training course "Logistics" provides students mastering the essence and purpose of an enterprise logistics management.

Discipline "Logistics" refers to the regulatory cycle of professionally oriented courses Bachelor in the direction of 6.030601 "Management".

The purpose of the discipline is: formation of modern theoretical knowledge and practical skills for using principles and techniques of logistics in the general system of management of the company.

To achieve the goal set there are the following targets:

acquisition of deep theoretical knowledge on concepts, strategies and tactics of logistics;

mastering of the methodological tools of development and implementation of the tasks of logistics;

mastering the skills of logistics thinking and developing proposals for improving logistics systems and their operation;

learning the characteristics of formation and developing knowledge of the enterprise personnel in the logistics flow management;

acquisition skills assessing the economic impact of the logistics solutions implementation.

The result of the discipline is learning and using the general principles and laws of the integrated management of material, information, financial and other flows, establishment and operation of logistics systems, optimal control of logistics processes.

The subject of the discipline "Logistics" is the general patterns of development of logistics systems, characteristics and trends in management and optimization of material flow.

The object of the discipline is the planning, control and management of transportation, warehousing, storage and other operations, inventory logistics, streamlining of commodity circulation, the economic efficiency of logistics.

Structure of the educational discipline "Logistics" is presented in Tab. 1.

Table 1

Structure of the educational discipline

Training Course: Bachelor direction	Field of knowledge, training direction, educational qualification	Qualification level of discipline Characteristics
1	2	3
The number of credits corresponding ECTS – 5 including: contents modules – 2; ISRT, tasks for independent work	Field of knowlefge: 0306 – "Management and Administration"	Required. Academic year – 3. Semesters – 1 (5)
Hours for topics: Module 1 – 88; Module 2 – 92, Total – 180	Direction of study: 6.030601 "Management"	Lectures (theoretical training) – 34 hours. Practical (seminar) studies – 34 hours. Individual training (ISRT) – 20 hours. Independent training – 92 hours
Weeks of teaching of the educational discipline: 17, Hours per week – 4	Educational qualification: bachelor	Assessment: examination

1. Qualification requirements for students of logistics

Training base for the discipline

Discipline "Logistics" is based on general knowledge of humanitarian subjects and knowledge of fundamental subjects "Economic Theory", "Microeconomics", "Macroeconomics", "Higher Mathematics", "Basics of Management", "Information systems and Technologies".

The discipline enables students to obtain general theoretical knowledge and form them into specific functional competencies that will form the basis for further learning professionally-oriented courses and contribute to further increase of the training level.

Within the course students receive the necessary knowledge during lectures and seminars, carrying out practical tasks and individual training and testing tasks. Also of great importance in the process of learning and getting knowledge is independent work of students.

All these types of activities developed in accordance with the provisions of the Bologna Declaration.

As a result of learning the discipline students **must know:**

subject and tasks of the discipline;

the essence of logistics concept, terms and methodology of investigation of patterns of functioning and development of the logistics systems;

the essence of the logistics systems theory, the main objective and tasks of logistics as a methodological base of the theory and practice of designing of complicated logistic systems;

the main provisions of the logistics theory and logistics analysis;

importance of logistics in the reproduction of modern production;

must be able to:

identify the main approaches of the logitics decision in the main spheres of the enterprise activity;

choose the methods, models and algorithms of the logistics systems research;

apply the basic provisions of the methodology of logistic analysis;

form the main stages and procedures of logistics research;

define and implementing the main procedures of the logistics systems design;

be able to have next competencies:

understand the modern views on logistics;

identify the main stages of logistics development;

know the main tends, that influence activization of the logistics technologies;

imagine the subject and object of the logistics management;

understand the role of logistics as an instrument of the modern economy;

develop the logistics systems;

conduct system analysis of the logistics activity of an enterprise in the connection with environment;

demonstrate knowledge and skills in the field of economical relationship optimization, integration flow processes;

make comprehensive production and logistics solutions in the field of enterprise management;

make decisions about integration of functions, logistics processes and spheres of the enterprise activity;

evaluate the results of the logistics management;

analyze the results of the logistics management;

implement the methods of logistics;

analyze the material, information and financial flows;

organize the logistics structure;

forecast the inventory level of the enterprise;

identify the most effective options of transportation;

carry out the location analysis;

design and reason the supply chain structure of different products;

formulate mission and develop logistics strategy to achieving the main goal of the enterprise activity.

Discipline syllabus was developed in accordance with industry standards for higher education based on educational and vocational training programs for bachelor's degree.

2. Thematic plan of the educational discipline

From the beginning of studying the discipline, every student should be acquainted with the syllabus as a form of the discipline and training, and the structure, content and scope of each of its training modules, and with all kinds of monitoring and evaluation of training methods.

Courses under the syllabus of the educational discipline "Logistics" are in the following forms: lectures, seminars, practical exercises, the individual tasks, independent work of students, controls.

The studying of the discipline consists of the training modules. Study is a relatively independent unit of a separate discipline, which logically combines several elements of training courses in content and relationships.

The study of the discipline takes place by coherent and deep processing of content modules.

Thematic plan of the discipline "Logistics" consists of two modules (tab. 2).

Table 2

Structure of a test credit of the educational discipline

Theme	Quantity of hours			
	Lectures	Practices (seminars)	Individual training	Independent training
Module 1. Conceptual foundations of logistics				
Theme 1. Logistics – an instrument of the market economy	2	2	–	9
Theme 2. The concept and methodology of the integrated logistics	2	2	2	9
Theme 3. The objects of the logistics management and logistics operations	4	4	4	9
Theme 4. Logistics activity and logistics functions	4	4	2	9
Theme 5. Logistics management in the general management	4	4	2	10
Module 2. Functional and basic logistics sharing				
Theme 6. Logistics approach to management of material flows in manufacturing	4	4	2	9
Theme 7. Logistics approach to management of material flows in circulation	4	4	2	9
Theme 8. Logistics approach to customer service	4	4	2	9
Theme 9. Warehouse and transportation in logistics	4	4	2	10
Theme 10. Economic support of logistics	2	2	2	9
Total	34	34	20	92

3. Contents of the educational discipline according to modules and themes

Module 1. Conceptual foundations of logistics

Theme 1. Logistics – an instrument of the market economy

The concept, essence and tasks of logistics. Preconditions, causes and stages of the logistics development. The modern definition of logistics as a science of management of flow processes. Basic concepts of logistics. Levels of formation of logistics.

Comparative analysis of traditional and logistic concepts of management of an enterprise. The experience of foreign countries in the application of logistics. Logistics as a factor of improving competitiveness of an enterprise.

Theme 2. The concept and methodology of the integrated logistics

The principles of modern logistics concepts. The basic characteristics of the concept of logistics. The basic rules of logistics. Framework for the integration of logistics. Integration of internal and external material flow.

The system approach as a methodological base of logistics. Logistics as a sphere of competence, which connects the company with its customers and suppliers and contributes to increasing competitiveness.

Logistics systems and principles of their formation. The properties of the logistics systems. Classification of logistic systems. Links of logistics systems. Logistics network.

Theme 3. The objects of the logistics management and logistics operations

Objects of logistics management and logistics activities. Characteristics of flow processes in logistics.

The concept of material flow and the parameters that characterize it. Classification of material flow. Information flows and their classification. Financial flows and their classification.Service flows and their characteristics.

General schemes of interaction of flows. Logistics operations with material, information, financial and service flows. Criteria for optimal control of flows. Integrated logistics flows.

Theme 4. Logistics activity and logistics functions

Logistic processes and logistics activities. Key logistics activities: customer service, forecasting, inventory management, material handling, logistics communications, order processing, packaging, procurement. Parts and service support, plant and warehouse site selecton, transportation, warehousing and storage, reverse logistics. Organizing logistics activities.

The basic logistics functions and their allocation between various participants of the logistic process. Infrastructure of logistic processes.

Theme 5. Logistics management in the general management

Definition and role of logistics management.

Logistics mission and logistics environment of the firm. Types of decisions. The relationship between mission, corporate strategy and logistics strategy. Types of logistics strategies.

Logistics and strategic planning. The essence and components of strategic plan. Developing strategic logistics plan. Tools of strategic decision making.

The concept of a supply chain. Connectivity of logistics with the main functional areas of business.

Types of the organizational structures of logistics management.

Module 2. Functional and basic logistics sharing

Theme 6. Logistics approach to management of material flows in manufacturing

The traditional and logistics concepts of production. Goals, objectives and functions of production logistics.

Intra-manufacturing logistics systems: their characteristics and comparative analysis. Push and pull systems of material flows management in production logistics.

Organizing supply of material resources and inventory management in micro-manufacturing logistics systems.

Theme 7. Logistics approach to management of material flows in circulation

Organizing distribution of materials and finished products. Distribution, the main functions.

Logistics channels and logistics chains. The internal structure and functioning of distribution channels. Choice of distribution channels. Types and features of the distribution channels.

Logistics intermediaries in the distribution, their classification and function.

Designing distribution systems. Systems of planning of the material resources in the distribution channels.

Theme 8. Logistics approach to customer service

The concept of logistics services. Provision of customer services as a means of improving the competitiveness of participants of logistic system. Classification of service.

Developing a policy for customer service.

The technology of work with clients. Technological scheme of the order processing.

Indicators of a customer service level and methods of their evaluation. Modeling and optimization of customer service level. The opportunities for improving a customer service performance.

Theme 9. Warehouse and transportation in logistics

The role of warehouses in the production and distribution of the products. Modern trends of the warehouse network.

Warehouse as an integrated part in the logistics chain. Types and functions of warehouses in the logistics system. The main problems of

warehousing of material resources in the logistics. The choice between private and public warehouses.

Warehousing operations. Determination of the number and location of the warehouse networks. The choice of storage.

Providing the unity of the storage and transportation processes. Transport modes and their characteristics. Logistics estimation of transport. Transportation costs and tariffs, the order of their application.

Theme 10. Economic support of logistics

The structure and scope of logistics costs. The impact of logistics costs in the market value of the products. Increased efficiency of the products and services through the management of logistics costs.

The concept of minimizing total costs. Logistics as the factor of improving financial sustainability and competitiveness of an enterprise.

4. Plans of lectures

Module 1. Conceptual foundations of logistics

Theme 1. Logistics – an instrument of the market economy

1. The essence and problems of logistics.
2. Evolution of logistics.
3. Levels of the logistics formation.

Refferences: main : [1–3]; ancillary : [7; 12; 15]; Internet references : [25].

Theme 2. The concept and methodology of the integrated logistics

1. The principles of modern logistics concepts.
2. The systems approach as a methodological base of logistics.
3. Logistics systems.
4. Logistics network.

Refferences: main : [2; 4; 6]; ancillary : [8; 10; 13; 18; 24].

Theme 3. The objects of the logistics management and logistics operations

1. Objects of logistics management and logistics activities
2. Flows in logistics
3. Logistics operations with material, information, financial and service flows.

Refferences: main : [1; 4]; ancillary : [11–18].

Theme 4. Logistics activity and logistics functions

1. Logistic processes and logistics activities.
2. The basic logistics functions

Refferences: main : [2; 5]; ancillary : [13–17; 23; 24]; Internet references: [25; 26].

Theme 5. Logistics management in the general management

1. Definition and role of logistics management.
2. The nature and necessity of logistics strategy.
3. Strategic decisions in logistics. Strategic logistics plan.
4. The concept of a supply chain.
5. Logistics organizational structures.

Refferences: main : [6]; ancillary : [7; 11; 14; 18; 23].

Module 2. Functional and basic logistics sharing

Theme 6. Logistics approach to management of material flows in manufacturing

1. Basic concepts and essence of production logistics.
2. The basic logistics concepts of organizing production.
3. Inventory concepts.
4. Inventory management models.

Refferences: main : [4; 5]; ancillary : [8; 10; 14; 19].

Theme 7. Logistics approach to management of material flows in circulation

1. Distribution logistics and its objectives.
2. The network design problems.
3. Channels of distribution.
4. Logistics intermediaries in the distribution.

Refferences: main : [1; 3]; ancillary : [8; 12; 16; 22].

Theme 8. Logistics approach to customer service

1. The concept of logistics services. The principles and tasks of logistics services.
2. Elements of customer service.
3. The technology of work with clients.
4. Customer service perfomance.

Refferences: main : [2]; ancillary : [9; 16–23].

Theme 9. Warehouse and transportation in logistics

1. Nature and importance of warehousing.
2. Warehouse location and facility development.
3. The essence and tasks of transport logistics.
4. Transport modes and their characteristics.
5. Transportation costs and tariffs.

Refferences: main : [4; 6]; ancillary : [7; 14–20].

Theme 10. Economic support of logistics

1. The structure and scope of logistics costs .
2. Methods for evaluating logistics costs and ways of their optimization.

Refferences: main : [1; 2; 5]; ancillary : [11; 13; 15–20].

5. Plans of seminars and practices

Seminar is a form of instruction where teacher organizes the discussion around certain topics to which students prepare the thesis.

Each seminar teacher evaluates the performances of students, activity in the debate, ability to formulate and defend their position.

Practice is a form of instruction where a teacher organizes a detailed consideration of individual students' theoretical learning. Students obtain skills and practical experience through individual performance of various tasks.

Practical studies based on previously prepared methodical material – tests serve to detect the degree of students' mastery of necessary theoretical terms, a set of tasks of varying complexity for solving by the students in class.

Workshop includes a previous control of knowledge and skills of students. Teachers formulate a common problem and discuss with students.

Workshops are held in classrooms with one academic group.

The list of topics of seminars and practice on the discipline "Logistics" is presented (tab. 3).

Table 3

Structure of seminars and practices

Theme	Questions	Hours	Bibliography
1	2	3	4
Module 1. Conceptual foundations of logistics			
Theme 1. Logistics – an instrument of the market economy (S)	1. A history of logistics. 2. The main stages of logistics development. 3. Modern trends in logistics	2	main: [1 – 3]; ancillary: [12; 14]
Theme 2. The concept and methodology of the integrated logistics (S)	1. The role of the logistics systems in optimizing company activity	2	main: [2; 6]; ancillary: [13; 17; 19]

Table 3 (the ending)

1	2	3	4
Theme 3. The objects of the logistics management and logistics operations (P)	1. Schemes of interaction of the logistics flows. 2. Parameters of the logistics flows	4	main: [3 – 5]; ancillary: [11; 14; 16]
Theme 4. Logistics activity and logistics functions (P)	1. Key logistics functions and their allocation between departments of an enterprise	4	main: [1 – 3]; ancillary: [7; 9; 11; 14; 17]
Theme 5. Logistics management in the general management (S)	1. Logistics philosophies. 2. Contemporary logistics strategies. 3. Types of logistics organizational structures	4	main: [2; 5]; ancillary: [11; 15; 21]
Module 2. Functional and basic logistics sharing			
Theme 6. Logistics approach to management of material flows in manufacturing (P)	1. Material requirements planning. 2. Inventory carrying costs. 3. Applying inventory models	4	main: [3; 5]; ancillary: [10; 12; 16; 18; 24]
Theme 7. Logistics approach to management of material flows in circulation (P)	1. Network design. 2. The role of the intermidiaries in the distribution	4	main: [4; 6]; ancillary: [8; 11; 13; 15; 20]
Theme 8. Logistics approach to customer service (S)	1. The role of the customer service in the company activity. 2. Assessment of the customer service	4	main: [1; 2]; ancillary: [9; 11 – 15; 18; 22]
Theme 9. Warehouse and transportation in logistics (P)	1. Warehouse location analysis. 2. Choice of transport and the carrier. 3. The costs of warehousing and transporting goods. 4. Standard logistic solutions to optimize warehouse and transport subsystems	4	main: [4; 5]; ancillary: [9; 12; 16; 17; 20; 22; 24]
Theme 10. Economic support of logistics (P)	1. The structure and scope of logistics costs . 2. Logistics cost optimization	2	main: [3; 5]; ancillary: [11; 13; 16; 17; 21]

6. Individual training and research objectives

Preparation of individual scientific and research tasks (hereinafter – ISRT) provides: systematization, consolidation, expansion of theoretical and practical knowledge and application of discipline in dealing with specific industrial situations, and developing independent work skills and mastering the methods of research and experiments related to the topic of ISRT .

ISRT suggests the presence of these elements of scientific research: practical value, comprehensive systematic approach to performance analysis, using advanced theoretical methods and modern scientific developments, the presence of elements of creativity, ability to use modern technology.

The practical significance lies in the grounds of ISRT reality of its results for the needs of management practices.

A comprehensive systematic approach to the topic of work is that the research subject is considered under different points of view – from the perspective of theoretical basis and practical developments, the conditions for its implementation, analysis, and ways to improve grounds and so on.

Application of modern methods is the development of selected scientific and objective grounds for different options to achieve the goals. Students must use the information on the latest achievements in research, to apply various methods and tools to solve the scientific problem.

General requirements for content and ISRT structure

Individual work consists of contents, introduction, three main parts, conclusion and references. The general theme of ISRT is "Supply chain management of the product". Choice of a product is carried out on the options (number of option corresponds with the number in the list of academic group).

Title page must contain the name of the ministry, university, department, discipline, topic of an ISRT, and surname of the student, an academic group number and surname of the teacher.

Content must reproduce the title, units, etc., that reveal the subject of individual work, indicating the page numbers on which they begin.

Introduction should describe the relevance of the logistic approach in modern business. Also, you must list the main advantages and disadvantages of logistics, to describe problems that can be solved by logistics.

The main part consists of three sections that reveal the essence of the problem, namely "Supply chain structure and transportation", "The problem of locating distribution centers", "Transportation problem".

Conclusions offer a list of recommendations and suggestions, and practical results obtained in this work. Next, you should draw the conclusions about the practical using the results.

References. Sources should be placed on the list in alphabetical order of first author's name. Information about sources should be given according to the requirements of the standard of compulsory indication of works.

The size of individual work should be of 12 – 20 pages.

Options of a product for ISRT

1. Mobile services.
2. Beer.
3. Fashion apparel.
4. Personal computers.
5. Food.
6. Children's car seats.
7. Shoes.
8. Milk.
9. DVD Player.
10. Automobile.
11. Fuel.
12. Pharmaceuticals.
13. Perfume.
14. Muffins.
15. Travel services.
16. Industrial equipment.
17. Furniture.
18. Tea.
19. Packaging.
20. Jewelry.

7. Independent training

A necessary element of successful learning courses is independent study of domestic and foreign special economic literature, statistical materials. The main types of students' independent work are: lecture material handling, preparation for seminars (practices) training; processing selected topics, that are not considered in lectures, preparation for the current tests, tests, module control.

The main types of independent work, students are offered in tab. 4.

Table 4

Structure of independent training

Themes	Independent training	Hours	Bibliography
1	2	3	4
Theme 1. Logistics – an instrument of the market economy	1. The origin of the term, the current definition of logistics. 2. The application of logistics in the military art	9	main: [1; 2]; ancillary: [7; 9 – 11; 17]
Theme 2. The concept and methodology of the integrated logistics	1. Trends in logistics development abroad and features of its functioning in Ukraine. 2. The basic methodologies of the modern theory of logistics: a systematic approach, cybernetic approach, economic and mathematical modeling	4	main: [2 – 4]; ancillary: [7 – 9; 14; 18; 22]
Theme 3. The objects of the logistics management and logistics operations	1. Forecasting in logistics. 2. A classification of forecasting methods	9	main: [3; 5]; ancillary: [7; 8; 12; 26]
Theme 4. Logistics activity and logistics functions	1. The activity mix. 2. The basic logistics functions and their allocation between the different departments of of the enterprise. 3. Infrastructure of logistic processes	9	main: [1–3]; ancillary: [8; 10; 14; 23]

Table 4 (the ending)

1	2	3	4
Theme 5. Logistics management in the general management	1. Contemporary logistics strategies. 2. Logistics management cooperation with marketing, with financial and production management. 3. Developing a supply chain model. 4. Logistics centres	10	main: [1; 4]; ancillary: [15–17]
Theme 6. Logistics approach to management of material flows in manufacturing	1. Internally production logistics systems and their role in the improvement of production management. 2. Formation of optimal production programs in the market environment. 3. Micro logistics systems: MRP, ERP, KANBAN and others. 4. Classification of stocks in the logistics system. 5. Inventory management technics "just in time"	9	main: [4; 5]; ancillary: [8–11; 14–16; 22–25]
Theme 7. Logistics approach to management of material flows in circulation	1. Location and optimization models. 2. Relations between logistics service providers and their customers. 3. Supply chain integration	9	main: [3–6]; ancillary: [8; 9; 13; 20]
Theme 8. Logistics approach to customer service	1. Marketing, which focuses on consumer. 2. Customer service strategy. 3. The level of customer service.	9	main: [4; 5]; ancillary: [8–11; 13–18; 22]
Theme 9. Warehouse and transportation in logistics	1. Shipment and packaging. 2. Cargo processing systems. 3. Suppliers of transportation services. 4. Management of transportation. Routing.	10	main: [6]; ancillary: [8–14; 21–23]
Theme 10. Economic support of logistics	1. The impact of logistics costs in the market value of products. 2. Increased efficiency of products and services through the management of logistics costs. 3. Conflict of costs	9	main: [3; 5; 6]; ancillary: [11–15; 18–22]

8. Questions for self-control

1. The concept, nature and objectives of logistics.
2. Background, causes and trends in logistics.
3. The origin of the term, the current definition of logistics.
4. The concepts of logistics. Levels of formation of logistics.
5. What is the difference between traditional concepts and logistics management?
6. What is the essence of the basic principles of logistics?
7. The evolution of the logistics concept.
8. List and describe types of logistics concepts.
9. What are the types of logistics activities?
10. What is the essence of the rules of logistics?
11. Describe the system approach as a methodological basis of logistics.
12. Place of logistics in modern methods of economic activity.
13. Basic functions and structure of logistics management at the macroeconomic and microeconomic levels.
14. Logistics management as a strategy to improve efficiency and competitiveness.
15. Strategy and planning for logistics.
16. Definitions and basic principles of system approach.
17. Concepts, properties, elements, types of logistics systems.
18. Identify the stages of formation, creating the conditions, principles of operation and development of logistics systems.
19. Classification of logistics systems.
20. Identify measures for building logistics systems.
21. Compare the classic and systematic approaches to logistics system.
22. What are the evaluation criteria used when selecting logistics system?
23. What conflicts may arise in carrying out functions of logistics system?
24. Describe the functional areas of logistics.
25. The functions of the organizational structure that manages the logistics system.
26. What are the types of organizational structures and logistics management services?

27. Definition and place of logistics management.
28. The essence of business strategy.
29. Identify the logistics strategy.
30. Describe the different logistics strategy.
31. What are the modern logistics strategies?
32. What is the relationship between logistics and corporate strategy?
33. The integration of functions and processes in the logistics management.
34. Functional area and main objectives of production logistics.
35. Requirements for organization and management of material flows.
36. Characteristics of the laws of production processes.
37. The formation of the optimal production programs in the market environment.
38. Objects of logistics solutions in sales.
39. The essence and basic functions of distribution.
40. What are the types of distribution channels and networks?
41. Who are the intermediaries in the distribution logistics?
42. Coordination and integration of logistics activities of the intermediaries.
43. What are features of distribution systems of a trading?
44. What is inventory?
45. Motivation of formation of reserves and the reasons for their creation.
46. What are types of inventories in the logistics system?
47. Identify the functions of inventory.
48. What are the costs associated with holding stocks?
49. Planning inventories.
50. Describe the inventory management system.
51. What is the nature of inventory control "just in time"?
52. What is the role and tasks of logistics?
53. Choosing the type of transport, the optimal number of vehicles.
54. Policy of transport organizations from the standpoint of logistics.
55. Transportation policy in Ukraine.
56. Transportation costs and tariffs, the order of their application.
57. Problems forwarding operations in Ukraine, alternatives and selection criteria, key management solution for transportation.
58. Qualitative analysis of the transport operation, classification factors in logistic systems.

59. Unimodal, multimodal system of goods delivery.

60. Transportation terminals, their types, functions and place in the logistics system.

61. Optimization of goods delivery.

62. Methods of economic incentives for efficient transport of goods.

63. Warehouses, their definitions and types.

64. What is the role of warehousing in logistics?

65. Identify the functions of warehouses.

66. Describe the warehouse operations.

67. The concept of loading units as the most important element of logistics.

68. What are the storage system and placement of inventories?

69. Modern trends in warehousing.

70. Logistics operations in the warehouse.

71. The value of container and packaging in the performance of storage operations.

72. The concept of information flow in logistics, the classification of the position of logistics.

73. Organizational aspects of logistics management.

74. The structure and interdependencies of logistics costs.

75. What are the types of logistics costs?

76. What is the performance of logistics?

77. Identify typical conflicts costs.

78. What is the essence of the concept of minimizing the total cost of the enterprise?

79. Logistics as a factor increasing the competitiveness of enterprises.

80. Foreign experience and prospects of logistics in Ukraine.

81. How is logistics related with the marketing effort?

82. Describe the kye challenges facing logistics today.

83. Explain the importance of the pretransaction, transaction and posttransaction elements of customer service.

84. What are the ways of improving the company’s customer service performance?

85. Why is inventory so important to the efficient and effective management of a company?

86. How does uncertainty in demand and lead time affect inventory level?

87. What is the economic order quantity model?

88. Describe the transport modes.

89. Explain the role and functions of brokers in the transportation systems.

90. What are the three basic functions of warehousing?

91. What is the difference between the private and the public warehouses?

92. Explain the relationship between the company's organizational structure and integrated logistics structure.

93. What is supply chain management?

94. Why do channels of distribution develop?

95. Explain how product characteristics influence channel design.

9. Individual consulting work

Individual and consulting work is advisory work in the form of: individual lessons, consultations, checking of individual tasks, verification and security problems that made the current control.

The forms of individual and advisory work are:

a) theoretical material:

consulting: individual (question – answer);

group (considering typical examples – cases);

b) learning practical material:

individual and group counseling;

c) a comprehensive assessment of learning program material:

individual presentation of the works.

10. Teaching methods

While teaching the discipline to activate teaching and learning of students are provided such educational technology applications: problem lectures, work in small groups, seminars-discussion, brain-storming, case method, role playing; banks of visual support.

Problem lectures are aimed at the development of logical thinking of students, number of topics is limited to two or three key points, students' attention is concentrated on material that is not reflected in textbooks, the experience of foreign schools through printed material and highlighting the main conclusions on matters considered are used. When teaching lectures students are provided with questions for self-reflection, which corresponds to the lecturer himself, without waiting for the responses of students. This system makes the students focus and begin to think actively searching for the correct answer. (Themes 2, 5, 7, 8).

Working in small groups makes it possible structuring the practical workshops in form and content, creating opportunities for every student participating in the work on training, ensuring the formation of personal qualities and experiences. (Themes 3 – 7).

Seminars-discussions involving the exchange of views and opinions of participants about the topic and developing thinking, help to shape the views and beliefs, develop the ability to formulate thoughts and express them, teach to evaluate the suggestions of others, critical approach to their own views (Themes 1, 2, 5, 8).

Brain-storming – a method of solving immediate tasks, the essence of which is to express a lot of number of ideas for a very limited period of time, discuss and make their selection (Theme 6, 9).

Case method – a method of the analysis of specific situations that allows to bring the learning to actual practice of specialists and involves consideration of operational, management and other situations, problem situations, incidents in the process of learning material (Themes 5, 7, 8).

Role playing games – a form of activation of the students in which they are involved in the process of staging a production situation as direct participants in events (Topics 8, 9).

Banks of visual support help to activate the creative perception of a content of courses by using visibility (Topics 1 – 10).

11. System of current and final assessment

Control measures include the current and final assesment.

Inspection and testing of students may be conducted in the following forms:

1. Assessment of student’s knowledge during seminars and practices.

2. The individual scientific and research tasks.

3. Of intermediate testing.

4. Current module control.

5. Final written examination.

Evaluating students knowledge during the seminars and workshops aimed at checking the level of preparedness of students for specific work.

The evaluations are conducted by the following criteria:

1) understanding the degree of assimilation of theory and methodology issues are to be considered;

2) the degree of mastering the facts of the discipline;

3) introduction of recommended books, as well as modern literature on the issues are to be considered;

4) ability to combine theory with practice in the consideration of design situations, solving problems, carrying out calculations when performing tasks made for self-processing, and tasks, made in the classroom;

5) logic, structure, style of presentation in writings and in speeches to the audience, the ability to justify their position, to summarize available information and draw conclusions.

Evaluation of knowledge based on solving the test tasks. Assessing the level of preparedness of students is conducted in a test twice during the current module. Through testing the level of knowledge of theoretical issues of discipline is determined.

Tests covering the main topics of the discipline. They consist of a set of tests which must be answered "yes" "no" or in a particular word.

Test results are determined by the 12-point scale according to the percentage of correct answers on the test tasks:

mark 12 – 95 – 100 %;

mark 11 – 88 – 94 %;

mark 10 – 81 – 87 %;

mark 9 – 75 – 80 %;

mark 8 – 69 – 74 %;

mark 7 – 63 – 68 %;

mark 6 – 57 – 62 %;

mark 5 – 51 – 56 %;

mark 4 – 45 – 50 %;

mark 3 – 30 – 44 %;

mark 2 – 15 – 29 %;

mark 1 – 0 – 14 %.

Evaluation of students' knowledge during the current module control is carried out in written form twice during the semester. It is estimated by two components: a practical and lecture module control (measured from 1 to 12 points). Each ticket of current module control consists of theoretical problems (two problematic issues) and practical problems (stereotypical, diagnostic and heuristic), which provide solutions to common professional tasks in logistics.

Estimation of results of the current module control is formed as follows:

Theoretical part: each issue is evaluated separately by the 12-point scale; the final score is calculated as the average value obtained estimates.

Practical part: each tasks is evaluated separately; the maximum score for stereotypical task – 2 points, for diagnostic task – 4 points, for heuristic one – 6 points.

Evaluation of tasks is carried out in accordance with generally accepted criteria for evaluating knowledge of the discipline "Logistics".

Example of Module task

Theoretical part

1. What is the difference between arborescent network and supply chain structure with assemblies?
2. Describe the connection between material and information flows.

Practical part

Task 1 (stereotypical)

Analyze the structure of information flow in the trade company. Make conclusions about the information.

Table 1

The structure of the total amount of information in trade company

№	Type of information	Department	
		Sales department	Warehouse
1.	Orders from customers	37	29
2.	Information from suppliers	11	9
3.	Information from bank	12,5	–
4.	Intermediary information	17	15,5
5.	Internal information to calculation	32	29

Task 2 (diagnostic)

It is necessary to do the break-even analysis using analytical and graphical methods, if the project is characterized by the following data.

Table 2

Data for solving the problem

Indicator	Product C
Expected annual sales, units	200
Price per unit, UAH	18
Variable costs per unit, UAH	13
Fixed costs, UAH	7200

Task 3 (heuristic)

Analyze the mission of the company; suggest main points and directions of logistics strategy to achieve the mission.

Company: Harley-Davidson, Inc

Slogan / Motto: Define your world in a whole new way.

Description: Harley-Davidson, Inc., is the manufacturer of a line of motorcycles, with over 32 models of touring and custom Harleys. Aside from their line of motorcycles, Harley-Davidson also offers motorcycle accessories, motorcycle clothing apparel, and engines.

Mission Statement: We fulfill dreams through the experience of motorcycling, by providing to motorcyclists and to the general public an expanding line of motorcycles and branded products and services in selected market segments.

Final exam is carried out after studying all the material of the discipline in the form of a written exam according to the appropriate exam cards, student’s answers are evaluated by a 12-point scale according to the qualification requirements for the Bachelor direction of training "Management."

Each exam card consists of five tasks of different difficulty levels: two stereotypical tasks, two diagnostic tasks and one heuristic task.

Example of the examination card

MINISTRY OF EDUCATION AND SCIENCE
YOUTH AND SPORTS OF UKRAINE
KHARKIV NATIONAL UNIVERSITY OF ECONOMICS
Discipline "Logistics"

Stereotypical task No. 1

Flower Shop Garden Variety uses 750 pots per month. They are bought for $ 2 apiece. Annual storage cost is 25% of price, ordering cost – 30%. Determine the optimal order quantity and annual cost of storage and order.

Stereotypical task No. 2

Determine the annual material flow at the site of unloading rail cars wholesale trade base area of 5 thousand sq m. During the year, the site made the following operations:

• Unloading the wagon and stacking goods on pallets – 6743 tons / year;

• Unloading the wagon and stacking the goods on electric lifts – 674 tons / year;

• Move the generated package

On the part of acceptance – 1730 tons / year;

On an expedition – 746 tons / year.

Diagnostic task No. 1

Head of the trade company hopes to improve inventory control, applying the method of ABC. According to the data in the table, it is necessary to classify items in categories A, B and C.

Table 1

Product code	Consumption	Price per unit ($)
A-1201	40	140
A-1202	180	72
A-1203	40	630
A-1204	130	20
A-1205	20	1020
A-1206	100	240
A-1207	1200	12
A-1208	400	20

Diagnostic task No. 2

It is necessary to do the break-even analysis using analytical and graphical methods, if the project is characterized by the following data.

Table 2

Indicator	Product C
Expected annual sales, units	1000
Price per unit, UAH	12
Variable costs per unit, UAH	10
Fixed costs, UAH.	7200

Heuristic task

Answer the questions and do the tasks on the basis of the following data.

Questions:

1. What is the logistics strategy? What are the main components of logistics strategy?
2. What is the supply chain?

Tasks:

1. Analyze the mission of the company; suggest main steps and directions of logistics strategy to achieve the mission.
2. Suggest and describe the supply chain structure for this type of product. Define the type of this supply chain structure.

The data for solutions

Company: Global Gillette

Slogan / Motto: Welcome to Everyday Solutions

Description: Global Gillette is a manufacturer of shaving equipment, specializing particularly in razors and blades, aside from being a manufacturer of batteries as well. Its brands include Sensor, Trac II, Mach3, M3Power, Fusion, and Duracell for its batteries product.

Mission Statement: We will provide branded products and services of superior quality and value that improve the lives of the world's consumers. As a result, consumers will reward us with leadership sales, profit, and value creation, allowing our people, our shareholders, and the communities in which we live and work to prosper.

Evaluation criteria of a written exam

Exam card includes the following tasks: two stereotyped tasks, two diagnostic tasks, one heuristic task.

Stereotyped task (maximum score is 1 point) – is put, if practical tasks performed on the whole correctly using the wrong algorithm.

Diagnostic tasks (maximum score is 2 points).

Mark 2 is put for full assimilation of the program material and the ability to navigate in it, conscious application of knowledge to solve practical situations. When performing diagnostic tasks the student must make correct conclusions about the proposed industrial situation and to formulate his own recommendation to improve the problem. Design of the completed task should be neat.

Mark 1 treats partial ability to apply theoretical knowledge to solve practical problems, if the task is partially completed, the student's responses demonstrated an understanding of basic material provisions of the discipline.

Heuristic tasks (maximum score is 6 points).

Mark 6 is put for deep knowledge of program material, the application to respond not only recommended, but additional literature and creative approach, a clear knowledge of concepts, methods, techniques, tools and financial sciences, ability to use them for specific practical problems, solving industrial situations. In the performance of heuristic problem the student must provide the production version of the proposed decision on the situation and draw the appropriate conclusions. Design questions should be neat, logical and consistent.

Mark 5 is put for full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve the problem of heuristic, if all requirements are provided for evaluation "4 points" in the presence of minor mistakes (i.e. approach to solving problems is true, but there were inaccuracies in the calculation of certain parameters), or not quite complete withdrawal by the results obtained by solving the problem. Design of the completed task should be neat.

Mark 4 is put for the ability to apply theoretical knowledge to solve the problem of heuristic, if the majority of tasks one performed, and student's response demonstrated understanding of the conceptual material of the discipline.

Mark 3 is put for acquiring a large piece of material, however, if a student performs an heuristic problem without sufficient understanding of the uses of educational materials and can not correctly perform all tasks.

Mark 2 is put for a partial ability to apply theoretical knowledge to solve practical problems, for not acquiring a large piece of material, if the student can not correctly perform the task facing many difficulties in the analysis of economic phenomena and processes.

Mark 1 is put for failure to do the task in general.

Criteria for evaluation of students' knowledge

Students' responses are evaluated according to 12-point scale according to the qualification requirements for students in "Management".

To assess students' answers to theoretical questions and practical issues the following criteria are used:

mark 12 is put for profound learning of the program material, the application to response not only recommended, but ancillary literature and creative approach, clear knowledge of concepts, methods, techniques and research tools. Answers must be complete and correct, answer design – neat, logical and consistent. For the task a student applies either a typical algorithm or independently developed algorithms. Conclusions to the task are quite reasonably justified;

mark 11 is put for profound learning of the program material and recommended literature, clear knowledge of concepts, methods, techniques and research tools, the ability to use them for specific practical problems, solving situations. Practical tasks are performed using the default algorithm, self-developed algorithm and reasoned conclusions are made. When performing tasks a student made minor inaccuracies.

mark 10 is put for the complete assimilation of the program material and recommended literature, clear knowledge of concepts, methods, techniques and research tools, the ability to use them for specific practical problems, solving situations. Practical tasks are performed using the default algorithm, self-developed algorithm and reasoned conclusions are made. Practical tasks are carried out properly in general, as the full model using the algorithm with some modifications. Incidental minor errors that do not significantly influence the completeness and consistency of the response are permitted. Design of the completed task should be neat;

mark 9 is put for the full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve practical problems, if all requirements stipulated for the evaluation "excellent" in the presence of minor arithmetic errors (i. e. approach to solving a problem is correct, but there were inaccuracies in the calculation of certain parameters), or not quite complete withdrawal by the results obtained by the task;

mark 8 is put for the full assimilation of the program material and ability to navigate in it, conscious application of knowledge to solve practical problems. Practical tasks are carried out in general correctly using the default algorithm, but the student assumes certain immaterial errors (for example, a methodical approach to problem solving is true, but supposed inaccuracies in the calculation of certain indicators or reflections);

mark 7 is put if a student when performing practical tasks applies the basic knowledge of educational material provided for the curriculum. Practical

tasks are carried out in general correctly using the default algorithm, but the student assumes certain immaterial errors (such as logical errors);

mark 6 is put for the lack of ability to apply theoretical knowledge to solve practical problems, if the task is mainly accomplished and goals achieved, the student's response demonstrated understanding of the conceptual material of the educational discipline. In carrying out practical tasks without sufficient understanding student uses educational materials and makes significant errors;

mark 5 is put for partial ability to apply theoretical knowledge to solve practical problems, if the task is partially completed, and student's response demonstrated understanding of the conceptual material of the discipline;

mark 4 is put in cases when a student performs practical tasks without sufficient understanding of course material, makes significant errors, faces difficulties in analysis and comparison of economic phenomena and processes;

mark 3 is put for not acquiring a large piece of material to those who can not properly perform practical tasks facing many difficulties in the analysis of economic phenomena and processes;

mark 2 is put to the student who did not master the program material, the practical challenge was not met, almost no analysis of the situation and the rationale for certain administrative decisions was made;

mark 1 is put for failure to perform the task in general.

To summarize the students' knowledge of the academic discipline "Logistics" the overall assessment that takes into account estimates of each type of control (two current module assessments, work during the semester and exam results) is assigned.

As a result of the module control and exam students get the final score. The final assessment takes into account the evaluation of each type of the control. Final assessment of the discipline "Logistics" is calculated by the formula:

$$F_a = 0{,}6 * E + (M_1 + M_2)/2\,,$$

where F_a – final assessment,

E – exam assessment,

M_1, M_2 – modules assessment.

Summary evaluation of the discipline in accordance with the Methods of transfering indicators of students' success into university assessment scale ECTS is converted to the grade on a scale of ECTS (tab. 5).

Table 5

Transference of University Characteristics of Students' Progress into the System of the ECTS Scale

Percentage of students who are usually successful, but achieve an appropriate evaluation rating scale	ECTS assessing scale		Assessment of the Kharkiv National Univresity of Economics scale	Assessment due to the national scale
10	Excellent performance	A	12 – 11	excellent
25	Above average	B	10	
30	Work is correct in general, but with a number of errors	C	9 – 7	good
25	Not bad, but many drawbacks	D	6	satisfactory
10	Performance meets the minimum criteria	E	5 – 4	
-	Needs re-taking	FX	3	unsatisfactory
-	Repeated study of the discipline	F	2 – 1	

12. Recommended References

12.1. Main

1. Крикавський Є. В. Логістика. Основи теорії : підручник / Є. В. Крикавський. – Львів : Національний університет "Львівська політехніка", "Інтелект-Захід", 2004. – 416 с.

2. Крикавський Є. В. Логістичне управління : підручник / Є. В. Крикавський. – Львів : Вид. Національний університет "Львівська політехніка", 2005. – 684 с.

3. Огієнко С. О., Дзьобко І. П. Логістика : конспект лекцій у схемах і таблицях / С. О. Огієнко, І. П. Дзьобко – Х. : ХНЕУ, 2009. – 95 с.

4. Пономаренко В. С. Логістичний менеджмент : підручник / В. С. Пономаренко, К. М. Таньков, Т. І. Лепейко ; за ред. проф., докт. екон. наук В. С. Пономаренка. – Х. : ВД "ІНЖЕК", 2010. – 440 с.

5. Таньков К. М. Виробнича логістика : навч. посібн. / К. М. Таньков, О. М. Тридід, Т. О. Колодизєва. – Х. : ВД "ІНЖЕК", 2006. – 352 с.

6. Тридід О. М. Логістика : навч. посібн. / О. М. Тридід, Ю. О. Леонова. – К. : ВД "Профксіонал", 2008. – 176 с.

12.2. Ancillary

7. Бауэрсокс Д. Дж. Логистика : интегрированная цепь поставок / Д. Дж. Бауэрсокс, Д. Дж. Клосс ; пер. с англ. – М. : Олимп-Бизнес, 2001. – 640 с.

8. Гаджинский А. М. Логистика : Учебник для высших и средних специальных учебных заведений.— 2-е изд.— М. : Информационно-внедренческий центр "Маркетинг", 1999. — 228 с.

9. Голиков Е. А. Взаимодействие маркетинга и логистики : учебн. пособ. / Е. А. Голиков. – М. : Флинта, 2007. – 568 с.

10. Корпоративная логистика. 300 ответов на вопросы профессионалов / Под. общ. ред. проф. В. И. Сеhгеева. – М. : ИНФРА-М, 2005. – 976 с.

11. Корсаков А. А. Логистика / А. А. Корсаков. – М. : Московская финансово-промышленная академия , 2005. – 37 с.

12. Логистика : учебн. пособ. / Под ред. Б. А. Аникина. – М. : ИНФРА-М, 1999. – 327 с.

13. Миротин Л. Б. Системный анализ в логистике : учебник / Л. Б. Миротин, И. Э. Ташбаев. – М. : Экзамен, 2002. – 480 с.

14. Неруш Ю. М. Логистика : учеб. / Ю. М. Неруш. – М. : ТК Велби, 2006. – 520 с.

15. Сергеев В. И. Логистика : информационные системы и технологии : учебно-практическое пособие / В. И. Сергеев, М. Н. Григорьев, С. А. Уваров. – М. : Издательство "Альфа Пресс", 2008. – 608 с.

16. Скоробогатова Т. Н. Логистика : учебн. пособ. / Т. Н. Скоробогатова. – 2-е изд. – Симферополь : ООО "ДиАйПи", 2005. – 116 с.

17. Тридід О. М. Система обслуговування споживача : теорія і практика : монографія / О. М. Тридід, К. М. Таньков, Г. Я. Дутка. – К. : УБС НБУ, 2008. – 416 с.

18. Уотерс Д. Логистика. Управление цепью поставок : пер. с англ. / Д. Уотерс. – М. : ЮНИТИ-ДАНА, 2003. – 503 с.

19. Bowersox Donald J. Supply chain logistics management / Donald J. Bowersox, David J. Closs, M. Bixby Cooper. – Boston : McGraw-Hill, 2002. – 656 p.

20. Brandimarte Paolo. Introduction to distribution logisttics / Paolo Brandimarte, Giulio Zotteri. – John Wiley & Sons, Inc., Hoboken, New Jersey. – 608 p.

21. Ghiani G. Introduction to logistics system planning and control / G. Ghiani, Laporte G., Musmanno R. – Chichester : John Wiley & Sons, Ltd. – 2004. – 377 p.

22. Logistics / R.S. Stephenson. – DHA, 1993. – 55 p.

23. Nyhuis Peter. Fundamentals of production logistics / Nyhuis Peter, Wiendahl Hans-Peter. – Springer, 2009. – 320 p.

24. Reza Zanjirani Farahani. Logistics Operations and Management / Reza Zanjirani Farahani, Shabnam Rezapour, Laleh Kardar. – London : Elsevier Inc., 2011. – 475 p.

12.3. Internet References

25. Журнал "Дистрибуция и логистика" [Электронный ресурс]. – Режим доступа : ukrlogistica.com.ua

26. ЛигаБизнесИнформ [Электронный ресурс]. – Режим доступа : www.liga.net.

27. Сервер Верховной Рады Украины [Электронный ресурс]. – Режим доступа : www.rada.gov.ua.

28. Сайт о логистике [Электронный ресурс]. – Режим доступа : www.logisticsmgmt.com

29. Украинская ассоциация маркетинга [Электронный ресурс]. – Режим доступа : www.uam.iatp.org.ua.

30. Энциклопедия маркетинга [Электронный ресурс]. – Режим доступа : www.marketing.spb.ru.

31. Logistics management magazine [Electronic resource]. – Access mode : www.logisticsmgmt.com

32. The Worldwide Directory of Transportation and Logistics [Electronic resource]. – Access mode: www.logisticsworld.com

Contents

EDUCATIONAL EDITION

Syllabus
of the educational discipline
"LOGISTICS"
for students of study direction
6.030601 "Management"
for all forms of learning

Compiled by: **T. Lepeyko**
O. Mazorenko

Editorial director **T. Lepeyko**

Editor **L. Novytska**
Proof-reader **L. Novytska**

НАВЧАЛЬНЕ ВИДАННЯ

Робоча програма
навчальної дисципліни
"ЛОГІСТИКА"
для студентів напряму підготовки
6.030601 "Менеджмент"
усіх форм навчання

(англ. мовою)

Укладачі: **Лепейко** Тетяна Іванівна
Мазоренко Оксана Володимирівна

Відповідальний за випуск **Лепейко Т. І.**

Редактор **Новицька Л. М.**
Коректор **Новицька Л. М.**

План 2012 р. Поз. № 180.
Підп. до друку Формат 60 х 90 1/16. Папір MultiCopy. Друк Riso.
Ум.-друк. арк. 2,25. Обл.-вид. арк. 2,81. Тираж прим. Зам. №
Видавець і виготівник — видавництво ХНЕУ, 61166, м. Харків, пр. Леніна, 9а
Свідоцтво про внесення до Державного реєстру суб'єктів видавничої справи
Дк № 481 від 13.06.2001 р.

Syllabus
of the educational discipline
"LOGISTICS"
for students of study direction
6.030601 "Management"
for all forms of learning