Syllabus of the elective component

Logistics Management

Discipline	Logistics Management
Higher education level	second (master's degree)
Moodle course web-page	https://dl.khadi.kharkov.ua/course/view.php?id=755
Educational component volume	4 credits (120 hours)
Final control form	test
Consultations	according to the schedule
Department	Transport Systems and Logistics Department
Language of teaching	English
Course leader	Ptytsia Nataliia, PhD, Associate Professor
Contact phone	+38 (057) 707-37-83
E-mail	nataliya.ptitsa@gmail.com

The educational component summary

The purpose is to develop research skills in the field of theory and methodology of logistics customer service, transport logistics infrastructure, quality of transport service, inventory management, logistics service, routing of cargo transportation, optimal number of arrival points on the delivery route, ensuring the functioning of transport and logistics systems of freight transport.

he subject of the study is theoretical and methodological foundations, methodological provisions of the scientific directions of transport logistics management at the modern stage.

The main tasks of an academic discipline are:

- substantiation and presentation of theoretical and methodological bases of logistics service;
 - study of the genesis of the theory of logistics;
- formation of directions for improvement and development of logistics management in transport;
- formation of skills in the organization of independent research work and presentation of the results of scientific research.

Prerequisites for studying the educational component:

Methods of scientific research; Supply chain management.

Competencies acquired by the applicants:

General competences:

Ability to develop projects and manage them;

The ability to evaluate and ensure the quality of performed works;

Ability to generate new ideas (creativity).

Special (professional) competences:

Ability to research and manage the functioning of transport systems and technologies;

Ability to manage supply chains and logistics centers;

Ability to manage cargo transportation by types of transport;

The ability to model the operation of inventory management systems at various links in supply chains;

The ability to use the methods and approaches necessary to create cargo delivery systems and assess the level of logistics service.

Training results:

Make effective decisions in the field of transport systems and technologies, taking into account technical, social, economic and legal aspects, generate and compare alternatives, assess the necessary resources and limitations, analyze risks;

Develop new and improve existing transport systems and technologies, determine development goals, existing limitations, criteria of efficiency and areas of use;

Develop cargo and passenger transportation technologies by mode of transport based on research and relevant data;

Analyze and evaluate the efficiency of supply chains and logistics centers, calculate relevant indicators;

Develop effective inventory management strategies at various links in supply chains;

Develop cargo delivery systems, evaluate and analyze the level of transport service for consumers;

Evaluate and analyze the level of logistics service for consumers of transport services.

Teaching methods:

- 1) verbal:
 - 1.1 traditional: lectures, explanations, talks, etc.;
 - 1.2 interactive (non-traditional): problematic lectures, discussions, etc.;
- 2) visual: illustration method, demonstration method;
- 3) practical:
 - 3.1 traditional: practical classes, seminars;
- 3.2 interactive (non-traditional): business and role-playing games, trainings, seminar discussions, «round table», brainstorm.

Thematic plan

	Theme (L, LW, PW, SEW)		Hours	
Theme			part-time	
Nº		training	training	
1	L. Theoretical concept and principles of logistics.	4	-	
	SEW. Components of logistics and marketing expenses.	8	12	
2	L. Classification of supply chains and channel levels.	4	2	
	PW. Optimization of client service level.	2	2	
	SEW. Determination of the client service radius and level.	8	12	
3	L. The optimal size of the logistics network.	4	2	
	SEW. The influence of the customer service radius on the	8	12	
	enterprise's total costs.	0		
4	L. Optimization methods of logistics capacities.	2	-	
	PW. Optimization of supply chain length.	2	2	
	SEW. Dependence of the customer service radius on the	8	10	
	structure of the company's network of service points.	0		
5	L. Selection of storage systems.	4	4	
	PW. ABC inventory analysis.	4	-	
	SEW. Accounting and control of goods movement in the	8	12	
	warehouse.			

	Theme (L, LW, PW, SEW)		Hours	
Theme			part-time	
Nº		training	training	
	L. Principles of logistic organization of warehouse	4	_	
6	processes.	-		
0	PW. Determination of the time trend of demand.	2	-	
	SEW. Limit withdrawal card.	8	12	
	L. Management of goods movement in the warehouse.	2	-	
7	SEW. Invoice requirement. Freight bill of lading. Invoice for	0	40	
7	materials release.	8	10	
	PW. Determination of seasonal demand components.	2	-	
8	L. Definition and classification of logistic information flows.	4	2	
	PW. The main parameters of the warehouse	2	2	
	SEW. Requirements and stages of the enterprise's	0	12	
	information system creation.	8	12	
9 Total	L. Classification of subsystems of the logistic information	4		
	system.			
	PW. Determining the optimal purchase batch.	2	-	
	SEW. Classification of information flows. Methods, tools	8	12	
	and algorithms of flow management in the logistics system.	0	12	
	L	32	10	
	PW	16	6	
	SEW	72	104	

Evaluation system and requirements:

Ongoing achievements

- **1** The applicants' ongoing achievement in the performance of the both educational activities and self-education work while training is evaluated using a four-point scale with the further conversion into the 100-point scale. While evaluating all kinds of works provided by the educational program are taken into account.
- **1.1** Lectures are evaluated by determining the quality of specific tasks performance.
- **1.2** Practical classes are evaluated by the quality of performance of the tests or individual tasks, execution and design of the report on practical works.
- **2** The final evaluation of the discipline is determined as a sum of points on:
- passed standard tests, verbal questioning, attendance and communication activity level;
 - in-class practical tasks execution and theoretical preparation.

Applicants' evaluation score scale according to the ongoing control is given in table1.

Table 1 – Points distribution under the themes defining a final test score according to the discipline ongoing assessment

Ongoing assessment							Discipline total score		
Theme	Theme	Theme	Theme	Theme	Theme	Theme	Theme	Theme	
1	2	3	4	5	6	7	8	9	100
10	12	12	12	12	10	10	10	12	

Final estimation

1 The final test score is got by the applicant at the last double-lesson according to the discipline ongoing assessment. The condition to pass the test is not less than 60 points

score.

- **2** Higher education applicants who have an ongoing assessment score less than 60 points can increase it at the last class by taking a combination of written and oral tests that comprise both answering 2 professionally-oriented question and a problem solution with further commenting the work done or standard tests. The applicants who made the tasks previewed by the practical classes are allowed to pass the final test.
- **3** Extra-points are awarded to the applicants for participation in scientific events.
- **3.1** Extra-points are added to the achieved sum of points by the higher education applicant for the current educational activity.
- **3.2** The number of extra-points awarded for different types of individual tasks depends on their volume and importance:
- discipline prize-winning places on the at the international / all-ukrainian competition of scientific students' works – 20 points;
 - discipline prize-winning places at all-Ukrainian olympiads 20 points;
- participation in the international / all-Ukrainian competition of scientific students' works 15 points
- participation in international / all-Ukrainian scientific conferences of students and young scientists – 12 points;
 - participation in all-Ukrainian discipline competitions 10 points
- participation in KhNAHU discipline competitions and scientific conferences –
 5 points;
- implementation of individual scientific and research (educational and research)
 tasks of increased complexity 5 points.
- **3.3** The number of extra points might not exceed 20 points.
- **4** The result of the study is evaluated on a two-point scale (passed/failed) according to table 2. The total score comprising the extra-points might not exceed 100 points.

Table 2 – Conversion of the score into national evaluation system

According to 100-point scale	According to the national scale
between 60 scores and 100 scores	Passed
less than 60 scores	Failed

Recognition of non-formal and informal training results

The procedure for the recognition of training results obtained in non-formal and informal education is regulated by <u>СТВНЗ-83.1-01:2021 «Визнання результатів неформальної та інформальної освіти»</u>.

To recognise these results, an applicant should submit an application to the dean of the faculty and attach certificates and other documents confirming the competencies obtained. Based on the results of the application consideration, a subject-specific commission is established to review the submitted documents, interview the applicant and decide on the re-crediting of training results or the appointment of certification in the form of a final control (10 working days are given for preparation). Based on the results of the control, the commission assigns a final grade. If the applicant receives less than 60 points, the results of non-formal or informal education are not credited. When re-crediting training results in a discipline, the applicant is exempt from studying it.

Course policy:

- the course involves working in the team, the environment in the audience is friendly, creative, open to constructive criticism;
- -the discipline requires mandatory attendance of lectures and practical classes, as well as self-education work;

- self-education work involves studying certain discipline themes, which are submitted in accordance with the program for self-education work, or have been considered briefly;
- all the tasks provided by the program must be completed within the prescribed time-frame;
- if the higher education applicant is absent for valid reasons, he/she passes the completed tasks during the self-education work and consultations provided by the teacher;
- while studying the course, higher education applicants should follow the rules of academic integrity set out in such documents: «Rules of academic integrity of participants of the KhNAHU Education process» (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_dobroch_1.p df), «Academic integrity. The text check of academic, scientific and qualification works for plagiarism» (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_85_1_01.pdf), «Moral and ethical code of participants of the KhNAHU educational process» (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_MEK_1.pdf).
- in case of detecting the plagiarism, the applicant receives 0 points for the task and must retake the tasks provided in the syllabus;
- cheating during control works and examinations is prohibited (including mobile devices). Mobile devices are only allowed to be used during online testing.

Recommended literature:

- 1. Крикавський Є.В. Логістика / Є.В. Крикавський. Львів: Львівська політехніка, 2014. 476 с.
- 2. Bowersox D. Logistical Management: The Integrated Supply Chain Process / D. Bowersox, D. Closs. McGraw Hill Education, 2017. 752 p.
- 3. Mohamed Achahchah Lean transportation management: using logistics as a strategic, Published 2019 by Taylor & Francis Books, 293 p.
- 4. Нефьодов М.А., Очеретенко С.В. Логістика. Навчальний посібник. Харків: XHAДУ, 2013. 164.
- 5. Gwynne Richards Warehouse management: a complete guide to improving efficiency and minimizing costs in the modern warehouse. / 2nd edn. 2014 London: Kogan Page Limited, 449.
- 7. Нефьодов М.А., Птиця Н.В. Визначення впливу середнього чеку торгівельної точки на радіус обслуговування. Комунальне господарство міст. 2018. № 7(146). С. 20-24.
- 8. Птиця Н.В., Ковцур К.Г. Критерій доцільності введення об'єктів торгівельної мережі на основі параметрів системи доставки. Сучасні технології в машинобудуванні та транспорті. 2019. №1(12). С. 127-134.
- 9. Птиця Н.В., Ковцур К.Г. До питання визначення характеру розташування вантажоодержувачів при дослідженні системи доставки. Сучасні технології в машинобудуванні та транспорті. Науковий журнал. 2021. №1(16). С. 131-136.
- 10. Птиця Н.В., Ковцур К.Г. Особливості логістичного управління складською системою підприємства експрес-доставки. Автомобіль і електроніка. Сучасні технології. 2022. № 20, 20 28.
- 11. Ковцур К.Г., Птиця Н.В., Кузєв І.О. Впровадження мотиваційної політики діяльності департаментів логістики на підприємствах. Розвиток транспорту, 2022. № 2 (13), 53–63..

Additional sources:

- 1. Електронний курс-ресурс з дисципліни «Логістичне управління»: https://dl2022.khadi-kh.com/course/view.php?id=755
 - 2. http://ula-online.org/

- http://cscmp.org
 https://logist.fm/
 www.elalog.eu/

- 6. https://supplychaindigital.com/
 7. https://logistics-ukraine.com/

Syllabus Developer		Nstsliia PTYTSIA		
- y	signature			
Head of Department		Petro HORBACHOV		
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