

**Syllabus
of the elective component
Supply chain management**

Discipline	Supply chain management
Higher education level	second (master's degree)
Moodle course web-page	https://dl2022.khadi-kh.com/course/view.php?id=899
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	Kochyna Anastasiia, PhD, Associate Professor
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Educational Component Summary:

The purpose is to train highly qualified specialists able to assess the impact of the logistics environment on the supply chain, make decisions in supply chain management, evaluate the economic efficiency of the supply chain, identify ways to reduce logistics costs and provide information support in supply chain management.

The subject is the theoretical and methodological background of the organization of interaction of the links of a supply chain of the optimal structure to optimize the process of the material flow passage and the patterns of influence of internal and external factors on the efficiency of the supply chain.

The main tasks of studying the academic discipline are:

- study of general principles and methods of supply chain management;
- development of skills to apply the principles of functioning and interaction of the links of the logistics system, as well as the principles of distribution of reference and functions among the links;
- development of skills to determine the criteria, methods and algorithms for optimizing technological and business processes in the supply chain;
- development of skills to independently solve the problems of designing, managing and evaluating the efficiency of supply chains.

Prerequisites for studying the educational component:

Higher mathematics; Theory of Probability.

Competencies acquired by the applicant:

General competencies:

- ability to search, process and analyze information from various sources;
- ability to communicate with representatives of other professional groups of different levels (experts from other fields of knowledge and economic activities);
- ability to develop and manage the projects;
- ability to evaluate and ensure the quality of work performed;
- ability to conduct research at an appropriate level.

Special (professional) competencies:

- ability to research and manage the functioning of transport systems and technologies;
- ability to identify and apply promising directions for transport process modeling;

- ability to use modern technologies of freight forwarding;
- ability to manage supply chains and logistics centers;
- ability to manage freight transportation by types of transport;
- ability to model the operation of inventory management systems at various links in supply chains;
- 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;
- to ensure the safety of people and the environment during professional activities and implementation of projects in the field of transport systems and technologies;
- develop new and improve existing transport systems and technologies, determine development goals, existing limitations, performance criteria 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;
- manage complex technological and production processes in transport systems and technologies, including those that are unpredictable and require new strategic approaches;
- develop effective inventory management strategies at various links of supply chains;
- develop cargo delivery systems, evaluate and analyze the level of transport and logistics service;
- evaluate and analyze the level of logistics service for consumers of transport services.

Thematic plan

Theme №	Theme (L, PW, SEW)	Hours	
		full-time training	full-time training
1	L. Formation and development of the concept of supply chain management.	2	2
	PW. Determination of parameters of instability of operations of the cargo delivery technological process.	2	-
	SEW. Functional cycle of logistics. Logistics clusters.	12	14
2	L. Analog model of the supply chain.	2	2
	PW. Assessment of supply chain capacity.	2	2
	SEW. Logistics processes at the enterprise. Marketing and logistics in supply chains.	16	16
3	L. Theoretical and practical aspects of supply chain design.	4	2
	PW. Choosing a supplier of transportation services. QRS-analysis of a supplier.	4	-
	SEW. Macroprocesses in supply chains. Marketing support of supply chains.	20	22
4	L. Evaluation of the effectiveness of the supply chain management system.	2	2

Theme №	Theme (L, PW, SEW)	Hours	
		full-time training	full-time training
4	PW. Feasibility study for choosing a cargo delivery scheme.	2	2
	SEW. The optimal number of warehouses. Logistics systems "KANBAN" and "Just In Time".	16	18
5	L. Supply chain integration.	2	1
	PW. Calculation of customs payments in the organization of foreign economic logistics activities.	2	-
6	L. Selection of an information subsystem for the supply chain management.	2	1
	PW. Calculation of the volume of management information.	2	2
	SEW. Information needs of logistics.	14	14
7	L. Global supply chain management.	2	-
	PW. Supply chain management at the stage of material resources procurement.	2	-
	SEW. Globalization of logistics processes. The essence of international logistics.	10	10
Sum	L	16	10
	PW	16	6
	SEW	88	94
Total		120	120

Teaching methods:

1) verbal:

1.1 traditional: lectures, explanations, talks, etc.;

1.2 interactive: discussions;

2) visual: illustration method, demonstration method;

3) practical (traditional): practical classes.

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 table 1.

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

Ongoing assessment							Discipline total score
Theme 1	Theme 2	Theme 3	Theme 4	Theme 5	Theme 6	Theme 7	100
12	12	24	14	14	12	12	

Final estimation

1 The final test score is got by the applicant at the last double-lesson according to the discipline's 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 questions and a problem solution with further commenting on 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 [СТВНЗ-83.1-01:2021 «Визнання результатів неформальної та інформальної освіти»](#).

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.pdf), «Academic integrity. The text check of academic, scientific and qualification works for the 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. Нефедов М.А. Управління ланцюгом постачань : Нефьодов М.А., Нефьодов В.М., Потаман Н.В. - Харків: ХНАДУ, 2017. 204 с.
2. Колодізева Т. О. Управління ланцюгами поставок: навчальний посібник / Т.О. Колодізева. – Харків : ХНЕУ ім. С. Кузнеця, 2016. – 164 с.
3. Крикавський Є. Логістика для економістів: [підручник] / Є.Крикавський. – 2-ге вид., випр. і доп. – Львів : Видавництво Львівської політехніки, 2014, – 476 с.
4. Сумец О. Логістичні системи і ланцюги поставок: навчальний посібник / О. Сумец, Т. Бабенкова. – К. : Хай-Тек-Прес, 2012. – 220 с.
5. Загурський О.М. Управління ланцюгом постачань : навч. посіб. / О.М. Загурський. – Біла Церква : ТОВ «Білоцерківдрук», 2018. – 416 с.
6. Логістика постачання, виробництва і дистрибуції: навч. посібник / М.Ю. Григорак, О.В. Карпунь, О.К. Катерна, К.М. Молчанова. – К.:НАУ, 2017 – 364 с.
7. Холод, Б. І. Глобалізація як фактор впливу на процеси логістичного управління зовнішньоекономічною діяльністю підприємств / Б. І. Холод, О. М. Зборовська // Європейський вектор економічного розвитку. – No 2 (17). – 2014. – С. 261-270.
8. Чечет А.М. Сучасні тенденції управління ланцюгами поставок / А.М. Чечет // Вісник НТУ. — 2012. – Вип. 26. – С. 351-354.
9. Гукалюк А.Ф. Удосконалення ланцюгів постачання в умовах трендів міжнародного бізнесу / А.Ф. Гукалюк // Економічний аналіз. – 2015. – Т. 21. – № 2. – С. 48-54.
10. Кочубей Д.В. Особливості формування ланцюгів поставок підприємства роздрібної торгівлі / Д.В. Кочубей, Т. М. Григоренко / Бізнес Інформ. – 2017. – № 10. – С. 264-268.

11. Кочина А.А. Дослідження просторового розташування зупиночних пунктів в приміському сполученні для міст України / А.А. Кочина// Системи управління, навігації та зв'язку. Збірник наукових праць. Полтава, ПолтНТУ ім. Юрія Кондратюка, 2019, - №3 (55). С. 58-62.6.

12. Горбачов П.Ф. Закономірності розподілу відстаней пересування пасажирів громадського транспорту в приміському сполученні / П.Ф.Горбачов, О.В. Макаричев, А.А. Кочина//Научно-технический сборник «Комунальне господарство міст». Серія: Технічні науки та архітектура., 2019 – №. 5(151). С. 75-80.

13. Кочина А.А. Оцінка впливу населених пунктів на інтенсивність руху транспортних потоків на автомобільних дорогах загального користування / А.А. Кочина // Науковий журнал «Сучасні технології в машинобудуванні та транспорті». – №1 (16). – 2021. – С. 74-82.

14. Кочина А.А. Формування інформаційної компетентності майбутніх фахівців / А.А. Кочина // Матеріали науково-методичної інтернет - конференції «Вища освіта за новими стандартами: виклики у контексті діджиталізації та інтеграції в міжнародний освітній простір», 25 березня 2021 р. – Х.: ХНАДУ, 2021. – С. 79-82.

Additional sources:

1. Supply Chain Digest (новини зі світу управління ланцюгами поставок). URL : <http://scdigest.com/>.

2. Транспортно-експедиторські послуги та інформація в Україні [Електронний ресурс] / Офіційний веб-сайт. – Режим доступу: <http://della.com.ua/>; <http://www.lardi-trans.com/gruz/>.

3. Міжнародний довідник з питань транспортування та логістики [Електронний ресурс] / The Worldwide Directory of Transportation and Logistic. – Режим доступу: <http://www.logisticsworld.com/>.

4. Council of Supply Chain Management Professionals [Електронний ресурс] / Official web-site. – Режим доступу : WWW/ URL: <http://cscmp.org/>.

5. Логістика в Україні (новини зі світу логістики та управління ланцюгами поставок). URL: <https://logistics-ukraine.com/>

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