# MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE NATIONAL AVIATION UNIVERSITY

Faculty of Transport, Management and Logistics Logistics Department

**AGREED** 

Dean of the Faculty of Transport,

Management and Logistics

Tetyana MOSTENSKA

«03» O/ 2023

APPROVED Vice-Rector for Academic

Anatoliy POLUKIN

«20» 01



## Quality Management System COURSE TRAINING PROGRAM

on

«Financial Flows in Logistics Systems»

Educational Professional Program: «Logistics»

Field of study:

07 «Management and Administration»

Specialty:

073 «Management»

Mode of study	Seme- ster	Total (hours/ ECTS credits)	Lectures	Practi- cals	Self- study	HW/ CGP/C	TP/ CPr	Form of semester control
Full- time	2	120 / 4,0	18	18	84	1 HW – 2s	-	Examination - 2s.

Index: CM-7-073-3/21-2.1.5



Document Code QMS NAU CTP 19.05-02-2023

page 2 of 11

Course Training Program on "Financial Flows in Logistics Systems" is developed on the basis of the Educational Professional Program "Logistics", Master Curriculum CM-7-073-3/21 and Master Extended Curriculum ECM-7-073-3/22 for Specialty 073 «Management», and corresponding normative documents.

Developed by:

Ph.D. in Economics,

Associate Professor of the Logistics Department

Tetyana SHCHEPINA

Ph.D. in Economics,

Associate Professor of the Logistics Department

Oksana POZNIAK

Discussed and approved by the Graduate Department for Educational Professional Program "Logistics", Specialty 073 "Management",— Logistics Department, Minutes № 21\_ of 12.12.2022.

Guarantor of the Educational Professional Program

Svitlana SMERICHEVSKA

Head of the Department

Viacheslav MATVIEIEV

Vice Rector on International Collaboration and Education

Iryna ZARUBINSKA

18» 01 2023

Document level – 3b
The Planned term between revisions – 1 year **Master copy** 



Document Code QMS NAU CTP 19.05-02-2023

page 3 of 11

### **CONTENTS**

INTRODUCTION	4
1. EXPLANATORY NOTES	4
1.1. Place, objectives, tasks of the subject	4
1.2. Learning outcomes the subject makes it possible to achieve	4
1.3. Competencies the subject makes it possible to acquire	4
1.4. Interdisciplinary connections	5
2. COURSE TRAINING PROGRAM ON THE SUBJECT	5
2.1. The subject content	5
2.2. Modular structuring and integrated requirements for each module	5
2.3. Training schedule of the subject	7
2.4. Homework	7
2.5. List of questions for exam preparation	8
3. BASIC CONSEPTS OF GUIDANCE ON THE SUBJECT	8
3.1. Teaching methods	8
3.2. List of references (basic and additional)	8
3.3. Internet Information Resources	9
4. RATING SYSTEM OF KNOWLEDGE AND SKILLS ASSESSMENT	9



Document Code QMS NAU CTP 19.05-02-2023

page 4 of 11

#### INTRODUCTION

Course Training Program on «Financial Flows in Logistics Systems» is developed based on the "Methodical guidance for the subject Course Training Program", approved by the order  $N_{\odot}$  249/0 $\mu$ , of 29.04.2021 and corresponding normative documents.

#### 1. EXPLANATORY NOTES

### 1.1. Place, objectives, tasks of the subject

Place of this academic subject in the system of professional training is determined by the need to develop knowledge, skills, professional competences and practical skills in future specialists related to the issues of effective formation and management of financial flows in logistics systems. This academic subject makes it possible to acquire theoretical and practical knowledge that forms the professional profile of a specialist in the field of management and administration.

The main target of the subject is the formation of students' professional competencies and skills in quality management and effective use of incoming and outgoing financial flows in logistics systems.

The tasks of studying the academic subject are:

- mastering the conceptual apparatus and theoretical foundations of managing financial flows in logistics systems;
  - familiarization with the methodology of managing financial flows in logistics systems;
- studying the mechanism of formation of financial flows of the logistics system for managing income, general and logistics costs of the enterprise, monitoring and analyzing the financial stability of the enterprise;
- acquisition of skills in analysis, monitoring, planning and forecasting of financial flows in logistics systems and financial risk management;
- familiarization with the criteria for the quality and efficiency of managing financial flows in logistics systems.

### 1.2. Learning outcomes the subject makes it possible to achieve

After completing the course, the students must achieve the following program learning outcomes (hereinafter referred to as PLO):

PLO2. Identify problems in the organization and justify solutions.

PLO8. Use specialized software and information systems to solve the problems of managing an organization.

PLO13. Be able to plan and implement information, methodological, material, financial and personnel support of the organization (subdivision).

PLO15. Manage financial flows in logistics systems, optimize logistics costs and develop a budget for logistics activities.

### 1.3. Competencies the subject makes it possible to acquire

As a result of studying the subject the student must acquire the following general competencies (hereinafter referred to as the GC), professional competencies (hereinafter referred to as the PC):

GC1. Ability to conduct research on appropriate level.



Document Code QMS<sup>-</sup>NAU CTP 19.05-02-2023

page 5 of 11

GC3. Possession of the skills in using modern information and communication technologies.

GC7. Ability for abstract thinking, analysis and synthesis.

PC4. Ability to effectively use and develop the resources of the organization.

PC11. Ability to identify ways and sources of funding, conduct economic assessments and analyse social costs and benefits.

1.4. Interdisciplinary connections

This subject is based on the knowledge of such subjects as "Strategic Supply Chain Management", "Logistics Management", "Business Analysis and Data Processing", and complements such subjects as "Risks Management in Logistics", "Logistics Systems Design" and others, and also precedes Pre-diploma Practice and performance of Qualification Paper in the specialty.

#### 2. COURSE TRAINING PROGRAM ON THE SUBJECT

2.1. The subject content

Training material is structured according to the module principle and consists of one educational module:

— Module 1 «Theoretical foundations and methodological approaches to managing financial flows in logistics systems», which is logical, completed, relatively independent, integral part of Master Curriculum and Master Extended Curriculum, learning of which provides module test and analysis of its performance.

2.2. Modular structuring and integrated requirements for each module

Module 1 «Theoretical foundations and methodological approaches to managing financial flows in logistics systems»

Integrated requirements to the module 1:

#### Know:

- theoretical foundations of the formation of financial flows in logistics systems and their management;
  - general classification of financial flows by types of financial and economic activity;
  - principles of management of the main components of financial flows in logistics systems;
  - methodology of formation and management of working capital in logistics systems:
  - methods of capital formation and management in logistics systems;
- methods of planning, budgeting and analysis, monitoring and forecasting of financial flows in logistics systems;
  - methods of financial risk management;
- methodological nuances of assessing the effectiveness of managing financial flows in logistics systems.

### Learning outcomes:

- determine the main types of financial flows and sources of their formation;
- manage financial flows;
- solve problems of managing logistics costs and revenues of the logistics system;



Document Code

QMS NAU CTP 19.05-02-2023

page 6 of 11

- substantiate decisions regarding the capital structure and cost of financial resources;

- qualitatively form and use the working capital involved in the financing of a certain logistics system;

- form complex decisions regarding the assessment of financial risks;

- using the methods of analysis and monitoring of financial flows to carry out their planning and forecasting, as well as to develop budgets for business processes related to the logistics chain;

- evaluate the effectiveness of financial flow management in logistics systems.

Topic 1. Theoretical bases of formation financial flows in logistical systems

The economic nature and essence of financial flows in logistics systems. The main types and characteristics of financial flows in logistics systems. Planning the size and structure of the financial flows of the logistics system. Basic principles of financial flow management.

Topic 2. Sources of financial flows in logistical systems

The essence and types of income in logistics systems, the pricing policy of the logistics system and the mechanism of its formation. Basic revenue management strategies in logistics systems. Management of logistics and general costs in logistics systems. Public feature of costs in the logistics system. Classification of logistics costs and their accounting systems. Analysis of costs in the logistics system. Activity-based- costing analysis.

Topic 3. Formation and financing of current assets in logistics systems

The concept and types of current assets in logistics systems. Formation of working capital. Managing the cash cycle of logistics systems. Credit policy of the logistics system. Management of receivables and payables. The impact of inventories on the financial condition of the enterprise.

Topic 4. Rules for the formation of capital in logistics systems.

The economic essence of capital in logistics systems. Analysis of the main sources of capital formation. Own and borrowed funds, internal and external sources. Capital structure management. Rules for the formation of loan capital of the logistics system.

Topic 5. Investment flows and financial risks management of in logistics systems.

The concept of a successful investment policy. Rules for the formation of an investment flow. Essence and classification of financial risks in logistics systems. Methods for identifying, measuring and evaluating the financial risks of logistics systems. Methods for neutralizing financial risks in logistics systems. Risk hedging.

Topic 6. Methodological approaches to the analysis and monitoring of financial flows

in logistics systems.

The essence, purpose and objectives of the analysis of financial flows in logistics systems. Information support of such analysis. Key sources and financial statements. Cash flow statement. Statement of equity. Additional and hidden sources of information. The sequence of procedures for analyzing cash flows and the main methods of monitoring.

Topic 7. Planning, budgeting and optimization of financial flows in logistics systems.

Essence and planning system of financial flows in logistics systems. Tactical and strategic planning of cash flows: essence and methods of implementation. Current and operational plan for optimizing cash flows in the logistics system. Basic principles of logistics system management based on budgeting. Methods and tools for optimizing financial flows in logistics systems

Topic 8. Evaluation of the effectiveness of financial flows management in logistics



Document QMS NAU CTP 19.05-02-2023

page 7 of 11

systems.

Determination of the essence of the concept of efficiency in managing the financial flows of the logistics system of an enterprise. Algorithm for determining the effectiveness of financial flow management. Factors of influence on the efficiency of the use of cash flows in logistics systems.

2.3. Training schedule of the subject

1	2.3. Training schedule of the subject		Total,	hour	
№	Topic (thematic section)	Total	Lectures	Practicals	Self-study
1	2	3	4	5	6
	Iodule 1 «Theoretical foundations and methodological appr	oaches	to ma	nagin	g
10 mil	financial flows in logistics systems»		- Didn't Co		
	2 semester				
1.1	Theoretical bases of formation financial flows in logistical systems	12	2	2	8
1.2	Sources of financial flows in logistical systems	12	2	2	8
1.3	Formation and financing of current assets in logistics systems	12	2	2	8
1.4	Rules for the formation of capital in logistics systems	13	2	2	9
1.5	Investment flows and financial risks management of in logistics systems	13	2	2	9
1.6	Methodological approaches to the analysis and monitoring of financial flows in logistics systems	13	2	2	9
1.7	Planning, budgeting and optimization of financial flows in logistics systems.	14	2	2	10
1.8	Evaluation of the effectiveness of financial flows management in logistics systems.	16	2	2 2	10
1.9	Homework	8		_	8
1.10	Module Test 1	7	2	_	5
	Total by the module 1	120	18	18	84
	Total by the subject	120	18	18	84

#### 2.4. Homework

In the 2<sup>st</sup> semester, students have to carry out homework in accordance with the methodical recommendations approved in the established order in order to consolidate and deepen the theoretical knowledge and skills of the student in studying the discipline.

The purpose of the homework is to master the tools for managing financial flows in logistics systems by determining the sources of the formation of financial flows, analyzing them as a whole and their constituent elements, evaluating the effectiveness of cash flow



Document Code QMS NAU CTP 19.05-02-2023

page 8 of 11

management based on KPI and developing practical recommendations for improving the efficiency of managing financial flows of the logistics system.

For successful completion of homework, the student must know the main sources of formation of financial flows of the logistics system, methods of analysis and management of the constituent elements of financial flows. Know the methods of evaluating the effectiveness of managing financial flows of logistics systems and be able to apply the results of the analysis when making management decisions.

The tasks to be performed are developed by the author of the work program. Study materials are approved by the minutes of the meeting of the graduation department, brought to the attention of the student individually and performed in accordance with methodical recommendations.

Time needed to carry out Homework is 8 hours of self-study.

### 2.5. List of questions for exam preparation

The list of questions and the content of tasks for preparation for the exam are developed by the leading teacher of the department in accordance with the work program, approved at the meeting of the department and brought to the attention of students.

### 3. BASIC CONSEPTS OF GUIDANCE ON THE SUBJECT

### 3.1. Teaching methods

When studying an academic subject, a student-centered approach to learning, a problem-oriented teaching style and interactive learning methods (group work method, discussions, role-playing games, case method, portfolio method, project method) are used, which contribute to the development of cognitive, creative and research activities of students.

The implementation of these methods is carried out during lectures, during the independent work of the applicants with educational literature, when the applicants perform team and individual tasks, prepare and defend presentations, solve problems independently and solve practical situations as a team, which allows the applicants to master the methodology and modern technologies of logistics justification of effective management decisions.

## 3.2. List of references (basic and additional)

#### **Basic literature**

3.2.1. Trusova N.V., Tsap V.D., Ternovskyi V.O. Financial Flows Management of the enterprise. Financial Mathematics: Study Guide. Melitopol: LLC "MMD Publishing House", 2019. - 392 p.

3.2.2. Yermoshkina O. Management of financial flows of industrial enterprises: an

essential-flow approach, Kyiv. 2019. 132 p.

3.2.3. Yermoshkina O. Improvement of the financial flow management system of industrial enterprises. Kyiv, 2018. 124 p.



Document QMS NAU Code CTP 19.05-02-2023

page 9 of 11

3.2.4. Murkor Soet. Financing Cash Flow Management and Financial Performance. Publisher: Scholars' Press. 2019. 56 pages.

3.2.5. Methodological developments of the department (in electronic form).

#### Additional literature

- 3.2.6. Kontseva V.V., Kostenko S.S. Financial flows in logistics systems. URL: http://www.nbuv.gov.ua/portal/natural/Vntu/2009 19 1/pdf/85/PDF.
- 3.2.7. Sumets O. M., Kyzym M. O., Syromyatnikov P. S., Kozureva, O. V., & Tsvirko O. O. (2019). Financial Flows in Logistics Systems of production enterprises. Financial and Credit Activity: Problems of Theory and Practice, 3(30), 165–175. https://doi.org/10.18371/fcaptp.v3i30.179529
- 3.2.8. Кустріч Л. О. Управління фінансовими потоками в логістичних системах в посткризовий період. *Економіка та суспільство*. Випуск 45. 2022. https://doi.org/10.32782/2524-0072/2022-45-26
- 3.2.9. Пасінович І. І., Сич О. А. Сучасні підходи до управління фінансовими потоками суб'єктів господарювання. *Ефективна економіка*. 2020. № 8. URL: http://www.economy.nayka.com.ua
- 3.2.10. Alexander Jack. Financial Planning & Analysis and Performance Management. Wiley; 1st edition (June 13, 2018). 640 pages.

#### 3.3. Internet Information Resources

- 3.3.1. Financial Management: Text and Problems by M Y Khan & P K Jain. Publisher: TMH, New Delhi. Access mode: www.eiilmuniversity.ac.in
- 3.3.2. Guide to financial statement analysis. Access mode: https://corporatefinanceinstitute.com/resources/knowledge/finance/analysis-of-financial-statements/

### 4. RATING SYSTEM OF KNOWLEDGE AND SKILLS ASSESSMENT

4.1. Assessment of certain kinds of student academic activity is carried out in accordance with table 4.1.

Table 4.1

Kind of academic activities	Max grade	
2 semester		
Module 1 "Theoretical foundations and methodological approaches to flows in logistics systems"	managing financial	
Carrying out of practical tasks	50 (summary)	
Carrying out homework	15	
For carrying out module test module test 1, a student must receive not less than	39	
Carrying out Module Test №1	15	
<b>Total by the Modules №1</b>	80	



Document QMS NAU
Code CTP 19.05-02-2023

page 10 of 11

Semester examination	20
Total by the subject	100

4.2. A student gets a credit for the completed assignment if the student's performance has been assessed positively.

4.3. The total of Grades for individual academic activities completed by a student constitutes a Current Semester Module Grade, which is entered into the Module Control Register.

4.4. The sum of the Total Semester Module Grade and Examination Grade constitute the Total Semester Grade which corresponds to a particular National Scale Rating and

ECTS Rating.

4.5. The Total Semester Grade is entered in an Examination Register, a student's record book and academic card, e.g.: 92/Ex/A, 87/Good/B, 79/Good/C, 68/Sat/D, 65/Sat./E, etc.

4.6. The Total Grade on the subject corresponds to the Total Semester Grade. The

Total Grade on the subject is entered in Diploma Supplement.



# Quality Management System. Course Training Program

«Financial Flows in Logistics Systems»

Document Code

**QMS NAU** CTP 19.05-02-2023

page 11 of 11

 $(\Phi 03.02 - 01)$ 

	*	API	КУШ ПОШИРЕННЯ ДО	ОКУМЕНТА	
№ прим.	Куди передано (підрозділ)	Дата видачі	П.І.Б. отримувача	Підпис	Примітки
	Yelleto	20.01.23	Ulcerezivea	As-	

 $(\Phi \ 03.02 - 02)$ 

АРКУШ ОЗНАЙОМЛЕННЯ З ЛОКУМЕНТОМ

№ пор.	Прізвище, ім'я, по батькові	Підпис ознайомленої особи	Дата ознайом- лення	Примітки

 $(\Phi 03.02 - 04)$ 

АРКУШ РЕЄСТРАЦІЇ РЕВІЗІЇ

№ пор.	Прізвище, ім'я, по батькові	Дата ревізії	Підпис	Висновок щодо адекватності
1	lesuperina M.M.	22.08.2023	all V	pod. nuclion 2023p.

 $(\Phi 03.02 - 03)$ 

АРКУШ ОБЛІКУ ЗМІН

No		№ листа (	сторінки)	Підпис	Дата	Дата	
зміни	Зміненого	Заміненого	Нового	Анульо- ваного	особи, яка внесла зміну	внесення зміни	введен- ня зміни
1	9	9			A	2902.202	2903

 $(\Phi 03.02 - 32)$ 

УЗГОЛЖЕННЯ ЗМІН

з эт оджения жин								
	Підпис	Ініціали, прізвище	Посада	Дата				
Розробник	#0/	) Signerea O.B.	goyeut	29.02. 24				
Узгоджено	Com	Carepirelcona C.3	// /	29.02.20				
Узгоджено	V		0					
Узгоджено								