### MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE NATIONAL AVIATION UNIVERSITY

Faculty of Transport, Management and Logistics Air Transportation Management Department



### Quality Management System

### **SYLLABUS**

on

"Technology of Interaction in the Air Transport System"

Field of study: 27 "Transport"

Speciality: 275 "Air Transport Technologies" Specialization: 275.04 "Air Transport Technologies"

Educational Professional Program: "Air Transportation Management"

Year of Study -4 Semester -7

Classroom Sessions -51 Graded Test -7 semester

Self-Study - 39

Total (hours/ECTS credits) -90/3,0

Index CB-6-275.2.1/16-2.2.14

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The Syllabus on «Technology of Interaction in the Air Transport System» is based on the educational and professional program and Bachelor Curriculum № CB-6-275.2.1/16 for Speciality 275 «Air Transport Technologies», Specialization 275.04 «Air Transport Technologies», Educational Professional Program «Air Transportation Management» and correspondent normative documents order №207/од of 27.04.2018.

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«»2019	« <u> </u>

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#### 1. EXPLANATORY NOTE

The main program of the basic discipline "Technology of interaction in the air transport system" is divided into the basis of the "Methodological instructions to the fragmentation and the design of the main and the most basic program of discipline", which was introduced into the order of June 2015. No. 37 / po3.

The primary discipline is given  $\epsilon$  the theoretical basis of knowledge and knowledge, which form the system profile in the transportation technology galaxy, and also allows you to choose the minimum number of basic disciplines for the formation of professional knowledge.

The purpose of teaching the discipline "Technology of interaction in the air transport system" is to disclose modern scientific concepts, concepts, methods and technologies aimed at developing the skills and skills of practicing the principles of operation of air transport systems to ensure the functioning of all modes of transport; providing future specialists with the basic theoretical and practical provisions necessary for their practical activity as transport managers, organizers of the effective functioning of transport systems by knowing the model of the processes that take place at the points of loading, unloading and transshipment of cargo in air transport units.

As a result of studying the discipline, the student must:

#### **Know:**

- basic information on the functioning of air transport systems;
- modern means of infrastructure of air transport systems;
- the concept of technology.

#### Be able:

- identify the characteristic features of the processes occurring at the points of interaction on aviation transport;
- using modern methods, to search for optimal options for influencing the processes of interaction in air transport systems;
- determine the main directions of interaction;
- to use methods of systematic approach to solving problems of interaction in air transport systems.

The course material is structured according to a modular principle and consists of two training modules, namely:

training module № 1 "Aviation Transport and Technology System";

training module No2 "Technologies of interaction in the air transport system", each of which is logically completed, relatively independent, integral part of the discipline, the assimilation of which involves carrying out module control work and analysis of the results of its implementation.

The course "Technology of interaction in the air transport system" is based on the knowledge of such disciplines as: "Passenger transportation", "Cargo transportation" and is the basis for studying such disciplines as: "Feasibility studies of transport development", "Interaction of modes of transport" and others.



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#### 2. SUBJECT CONTENT

#### 2.1. Module №1 "Aviation Transport and Technology System"

Theme 2.1.1. Classification of modes of transport and their role in the maintenance of commodity flows.

Public transportation. Urban and suburban transport. Industrial transport.

Theme 2.1.2. The air transport system is an object of logistics infrastructure.

The concept of air transport system. Transport services market. Transport infrastructure objects by modes of transport.

#### Theme 2.1.3. Global trends in the development of air transport systems.

The concept of globalization. International transport corridors. Macroeconomic factors for the development of air transport systems.

Theme 2.1.4. The main problems of interaction of different objects of the air transport system.

The main problems of interaction of different objects of the air transport system. Location of infrastructure elements of the air transport system. Techniques that help you solve major interaction issues.

#### 2.2. Module 2. "Interaction Technologies in the Air Transport System"

#### Theme 2.2.1. Characteristics of the material and technical base of air transport.

Characteristics of the material and technical base of air transport, its main components, characteristics of components. Functions of the State Aviation Service of Ukraine.

Theme 2.2.2. Airways. Aviation terminals: characteristic, throughput and efficiency.

Airways. Aviation terminals: characteristics, throughput and efficiency. Efficiency of functioning of the existing network of airlines. Airways throughput.

Theme 2.2.3. Air vehicles, their classification, technical and economic characteristics and performance indicators.

Air vehicles, their classification, technical and economic characteristics and performance indicators. Employment rate of the passenger seat. Flight hours. Determination of the structure of the network of routes. Commercial download.

Theme 2.2.4. Technology of interaction between the company and the airline at the airport.

Technology of interaction between the company and the airline at the airport. Common technological maps, common technological graphs of interaction. Coordination of interaction. Services involved in the maintenance of aircraft: passenger and cargo. The sequence of maintenance.

#### Theme 2.2.5. Ukraine's air transport system.

Characteristics of Ukraine's air transport system. Analysis of indicators of functioning of elements of the air transport system of Ukraine. Demand for air transportation. Analysis of airline performance indicators. Analysis of airport network performance indicators. System Performance Analysis.



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

#### 3.1. Basic recommended sources

- 3.1.1. Марінцева К.В. Наукові основи та методи забезпечення функціонування авіатранспортних систем: монографія [Текст] / К.В. Марінцева. К.: НАУ, 2014. 504 с.
- 3.1.2. Маринцева К.В. Текущее прогнозирование в оперативном планировании эксплуатации заданной авиалинии [Текст] / К.В. Маринцева // Вісник Східноукраїнського національного університету імені Володимира Даля. 2012. №6(177). Ч.2. С.81-87.
- 3.1.3. Единая транспортная система / Под ред. В.Г. Галабурды. М.: Транспорт, 2001. 303 с.

#### 3.2. Additional recommended sources

- 3.2.1. Зайцев Е.Н. Разработка методологии синтеза комплексной системы управления смешанными перевозками с целью повышения эффективности транспортнологистических систем при неопределённости факторов их взаимодействия [Текст]: дисс... доктора техн. наук: 05.22.01 / Е.Н. Зайцев. СПб., 2006. 356 с.
- 3.2.2. Розміщення продуктивних сил і регіональна економіка: Підручник/ За ред. В. В. Ковалевського, О. Л. Михайлюка, В. Ф. Семенова. 7-ме вид., стереотип. К.: Знання, 2005. 350 с.
- 3.2.3. Экономика пассажирского транспорта: учебное пособие / коллектив авторов; под общей ред. проф. В.А.Персианова. М.: КНОРУС, 2012. 400 с.



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 $(\Phi 03.02 - 01)$ 

АРКУШ ПОШИРЕННЯ ДОКУМЕН
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<u>№</u> прим.	Куди передано (підрозділ)	Дата видачі	П.І.Б. отримувача	Підпис отримувача	Примітки

 $(\Phi 03.02 - 02)$ 

АРКУШ ОЗНАЙОМЛЕННЯ З ДОКУМЕНТОМ

<b>№</b> 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

 $(\Phi 03.02 - 03)$ 

#### АРКУШ ОБЛІКУ ЗМІН

№	№ листа (сторінки)			Підпис особи,	Дата	Дата	
зміни	Зміненого	Заміненого	Нового	Анульо- ваного	яка внесла зміну	внесення зміни	введення зміни

 $(\Phi 03.02 - 32)$ 

### УЗГОДЖЕННЯ ЗМІН

	Підпис	Ініціали, прізвище	Посада	Дата
Розробник				
Узгоджено				
Узгоджено				