(Φ 03.02 – 110) MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE NATIONAL AVIATION UNIVERSITY Faculty of Transport, Management and Logistics Air Transportation Management Department
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Quality Management System COURSE TRAINING PROGRAM on «Air Passenger Transportation»

Educational Professional Program: «Air Transportation Management» Field of study: 27 «Transport» Speciality: 275 «Air Transport Technologies» Specialization: 275.04 «Air Transport Technologies»

Training Form	Seme ster	Total (hours/credits ECTS)	Lect ures	Practic als	Lab. class es	Self- Stud y	HW/CG P	TP/CP	Semester Grade
Full-time	5	120/4,0	17	_	34	69	_	TP-5s	Graded Test 5s

Index: CB-7-275-1/21-2.1.28

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Course Training Program on «Air Passenger Transportation» is developed on the basis of Educational Professional Program «Air Transportation Management», Bachelor Curriculum and Bachelor Extended Curriculum №CB-7-275-1/21, №ECB-7-275-1/21 for Speciality 275 «Air Transport Technologies», Specialization 275.04 «Air Transport Technologies» and corresponding normative documents.

Developed by: Senior Lecturer of the Air Transportation Management Department _

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Discussed and approved by the Graduate Department for Speciality 275 «Air Transport Technologies», Specialization 275.04 «Air Transport Technologies» and Educational Professional Program «Air Transportation Management» - Air Transportation Management Department, Minutes No. $M_{\rm eff}$ « G » $D_{\rm eff}$ 2021

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INTRODUCTION

Course Training Program on «Air Passenger Transportation» is developed based on the "Methodical guidance for the subject course training program", approved by the order N_{2} 249/og, of 29.04.2021 and corresponding normative documents.

1. EXPLANATORY NOTES

1.1. Place, objectives, tasks of the subject.

The subject is an integral part of the theoretical basis of knowledge and skills in training specialists of air transportation area, studying the technological subjects.

The objective of the subject is providing future specialists with specific knowledge on the national and international air transportation management according to the norms, rules and standards in the air transportation area.

The tasks of the subject are:

- providing future specialists with knowledge of national and international regulations governing the work of air passenger traffic;
- mastering modern methods of developing technological schemes for servicing passengers of different categories in air transport.
- mastering the methods of developing the technology of air passenger transportation;
- studying of methods of development of technological schemes of passenger services.

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

• Take responsibility, show public awareness, social activity and participation in the life of civil society, think analytically, critically understand the world;

• Critically evaluate the scientific values and achievements of society in the development of transport technologies;

• Develop and use transport technologies taking into account the requirements for environmental protection;

• Classify and identify transport processes and systems. Evaluate the parameters of transport systems. Perform system analysis and forecasting of transport systems;

• Organize and manage the transportation of passengers and luggage in various connections. Choose the type, brand, type of vehicles (vessels) and routes. Organize passenger service at stations and passenger terminals;

• Evaluate the parameters of traffic flows. Design schemes and networks of transport systems. Develop technologies for operational management of traffic flows;

• Choose information systems for transportation. Operate automated control systems and navigation systems in the transportation process. Use electronic cards.

- 1.3. Competences the subject makes it possible to acquire.

• Ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine;

• Ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, techniques and technologies. for active recreation and healthy living;

• Ability to conduct research at the appropriate level;

• Safe activities skills;

• The desire to preserve the environment;

• Ability to analyze and forecast parameters and performance indicators of transport systems and technologies taking into account the impact of the external environment;

• Ability to organize and manage the transportation of passengers and luggage (by mode of transport);

• Ability to quickly control the flow of traffic;

• Ability to organize the interaction of modes of transport;

• Ability to organize international transportation;

• Ability to identify insurance cases in air transport, to develop a system of measures to prevent and eliminate them.

1.4. Interdisciplinary connections.

This subject is the basis for studying such subjects, as: "Term Paper" Air Passenger Transportation", "International Transportation".

2. COURSE TRAINING PROGRAM ON THE SUBJECT

2.1. The subject content.

Training material is structured according to module principle and consists of **one educational module**, **Module** No1 «Technology of Passenger Services by Air Transport», that is logically complete, relatively independent, holistic part of the subject, learning of which provides module test and analysis of its performance.

A separate second module (educational component) is a Term Paper (TP), that is performed in the fifth semester. TP is an important component of consolidation and deepening the theoretical and practical knowledge and skills acquired by students in the process of mastering the subject educational material.

2.2. Modular structuring and integrated requirements for each module.

Module №1 «Technology of Passenger Services by Air Transport»

Integrated requirements to module №1:

know:

- the main criteria and factors that are taken into account at different stages of the airport and the airline;

- methodology of methods of forecasting air traffic volumes;

- basics of legal issues (contracts and commercial rights);

be able:

- independently analyze data from ICAO, IATA, Derzhkomstat, websites of airlines, airports; based on technical and other characteristics.

- independently decide on the effectiveness of the development of the business plan of the airport and the airline.

Topic 1. Aim and Task of the Subject. Description of the Air Transport System. Analysis of the Air Transport System of Ukraine. Air Transportation Market Research Methods.

Familiarization of students with the structure of the course "Aviation Passenger Transportation", types of lectures, practical and independent work, rating system in this discipline.

Introduction of basic definitions: organization, technology of passenger service on air transport, airline, operator, airport, types of air transportation, types of flights. Structure of the market of air passenger transportation (APT).

APT market research plan: main indicators characterizing the industry; competitive forces operating in the industry, the degree of their influence, the main factors causing change in the industry, assessing the impact of these factors in the future

The structure and functioning of the PBX of its elements in the formation of the experience of the consumer of aviation services.

Determining the structure of the network of air routes. Review of transport and logistics infrastructure and analysis of indicators of functioning of elements of the air transport system of Ukraine.

System approach in research of air transport systems. Multilevel hierarchy of decision-making processes of aviation entities.

Topic 2. International Regulation of Air Transport. National Regulation and Methods of State Regulation of the Air Passenger Transportation Market.

Necessity and results of international aviation organizations: ICAO, IATA, ICAA, European Civil Aviation Conference, Eurocontrol. Processes in official international organizations.

Processes of concluding multilateral agreements. Documents of the Chicago Conference. Warsaw System and the Montreal Convention of 1999. Regional Multilateral Agreements. Possible processes of



finding a new principle of multilateralism. Structural elements of the new multilateral agreement on air transport. General Agreement on Trade in Services and the Annex on Air Transport contained in this Agreement

The process of national regulation: consideration of the main document, which sets out the main aspects of state regulation of international air transport - ICAO Doc 9626; introduction of the concepts of "regulation of air transport", "objectives of national regulation", "state regulation".

Legislative component: consideration of current laws, policies, rules and regulations concerning the organization of APT

Licensing component: a review of permitting rules, restrictions, refusals or revocations of permits to operate on a permanent or long-term basis.

Bilateral regulation: introduction of the concepts "bilateral communication agreement", "agreement on irregular air services", "air freedom". Consideration of the procedure of preparation (consultations) for concluding agreements, structure of agreements, process of liberalization of the APP market.

Areas of state regulation in the economic field of international air transportation and specific issues that may be subject to regulation: access to the main market, economic activity, airline tariffs, air carrier capacity, aircraft leasing, ownership of the air carrier.

Concepts (models) of aviation market development: "administrative" and "liberal". Classification of methods of state regulation of international air transportation: legal, administrative (direct), economic (indirect), special.

Topic 3. Airport Passenger Complexes. Technological Principles of Designing the Passenger Airport Main Functional Zones. Application of methods on the example of Ukrainian Airports.

General scheme of passenger traffic formation at the airport. Criteria for assessing the quality of passenger airports.

Basic concepts of passenger airports: landing galleries (centralized); linear (semi-centralized or decentralized); conveyor (centralized); island (centralized); modular airport with the presence of compact technological units (semi-centralized or decentralized).

Consideration of the methodology for determining the optimal characteristics of the functional areas of the passenger airport according to the recommendations of IATA - Airport development Reference Manual. Application of queuing theory in the design of functional zones of the airport (using the STORM application program).

Topic 4. Passenger Registration (check-in) Technology. Technology of Passenger's Departures and Arrivals Service. Transfer and Transit Passengers Service Technology.

Passenger and luggage check-in equipment. Necessary conditions for the use of electronic passenger registration technology. Technology of registration of excess baggage. Analysis of the information entered in the consolidated loading list.

Airport formalities: customs control, registration, passport control, aviation security control.

Organizational schemes of passenger registration: by the method of organizing the implementation of technological operations (flight and free); by the nature of accounting for information on passenger and luggage transportation (basic, simplified and simplest); at the place of operations in the operating room of the airport (on the outpost, near the plane, on the plane).

Airport formalities in passenger service upon arrival. Necessary equipment for standard maintenance procedures.

Features of passenger service in case of irregular flights. Formation of the manifest on irregular flights - FIM. Limits of liability of the air carrier for delay of passengers in case of irregular flights.

Standard procedures for servicing transfer and transit passengers at departure and transit airports. Registration of transfer passengers. Formation of the message on transfer passengers - RTM. Features of service of transit passengers. Features of registration of luggage of transfer and transit passengers.

Topic 5. Service of Passengers with Special Categories: Technologies of Unaccompanied Minors Service; VIP Passengers. Service of Passengers with special Categories.

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Procedures for unaccompanied minors: application of standard codes, execution of a standard Application for unaccompanied children (according to IATA recommendations), rules for booking and informing the carrier, features of technologies at airports of departure, transfer / transit, arrival.

Rules for servicing unaccompanied children on board the aircraft. Terms of service for VIP passengers, features of booking and information service, application of standard airport formalities, formation of PSM message.

Passengers with disabilities; group transportation; diplomatic couriers; deported passengers; passengers with pets; passengers with oversized baggage.

IATA Standard Recommendations Resolution 700 on the Service of Persons with Disabilities (OFM): "MEDIF" is a medical information form, "FREMEC" is a card for disabled people who travel frequently. Classification of passengers with OFM. INCAD form - form of information about OFM service. Using warrants for various fees. Necessary equipment at the airport to service OFM.

Topic 6. Airline as a Functional System. The task of Forming the Airline's Fleet. Features of Booking Reservation. Passenger on Board Services. Development of an Airline Business Plan.

Airline structure. Functions of units for the organization of APP. Airline business models: "classic airlines", "budget", "feeder", "search for your niche". Formation of the airline product: network of routes, schedule, tariff policy, organization of passenger service, sale of transportation. A brief overview of the production and financial activities of airlines in Ukraine and the world.

A brief overview of the fleet structure of Ukrainian airlines and some of the world's leading airlines. Formation of a database on types and technical and economic indicators of aircraft. Classification of aircraft: trunk, regional, local airlines; wide-body, narrow-body.

Types of aircraft leasing. Features of the legal framework of leasing in Ukraine. The structure of lease payments for aircraft.

Example of application of operations research methods (linear programming) for decision-making on the structure and distribution of the airline's fleet using the LINDO application program.

Registration of group transportation, diplomatic couriers, passengers with oversized baggage.

An example of the technology of passenger service on board the aircraft: the distribution of functions of flight attendants, standard procedures for preparation for departure, service during the flight and on landing.

Airline registration process: licensing, operator certification. Structure and content of the airline's business plan: general characteristics of the airline; analysis and evaluation of activities; marketing plan; production activity plan; organizational plan; environmental protection plan; financial plan and investment program; risk assessment and insurance; organizational and legal support; summary (conclusion).

Topic 7. Standards of Airlines Quality Operation During Transportation of Passengers. Faults in Baggage Transportation. Quality of Air Cargo Services. Handling Companies.

Procedures for servicing deported passengers (rules for issuing relevant notices and air tickets, application of standard codes).

Standard procedures in case of lack of luggage. Undelivered / lost luggage: generating standard search messages. Procedure for filling in and drawing up a form of malfunctions during luggage transportation (PIR - Property Irregularity Report). World Tracer ». Types of luggage search files in the World Tracer system: AHL; OHD; QAH; QOH; DPR.

IATA Live Animals Regulations recommendations for the carriage of pets by passengers. Features of booking and filling in flight documentation. Forming a PSM message.

Topic 8. Formation of an Airline Network in Air Transport System. Methods of calculating the cost of the flight.

Different approaches to the classification of airline costs, algorithms for determining the cost of transportation. ICAO cost classification: direct operating costs (crew salaries, fuels and lubricants, maintenance and repair, depreciation, etc.) and indirect operating costs (airport and other fees, passenger



service, advertising and ticket sales, general, administrative and other). Methods for determining the cost of the flight using statistics on the cost of operation of one block-hour of a certain type of aircraft: ACMI and FOC.

Construction of the methodology for determining the cost of the flight according to the methodological recommendations for the formation of the cost of transportation by transport (taking into account the regulatory framework of Ukraine).

Module № 2 (educational component) «Term Paper»

Term Paper is performed in the fifth semester, in accordance with the approved guidelines.

The purpose of the course work in the discipline "Air Passenger Transportation" - the development of feasibility study for the development of air transportation on a given route, which is performed by the student independently under the guidance of the teacher for a specified period. The course work is creative and consists of a set of documents (explanatory notes and drawings, made in compliance with the requirements of DSTU).

To successfully complete the course work, the student must know: the main criteria and factors that are taken into account at different stages of the project life cycle; methodology of methods for forecasting air traffic volumes; basics of legal issues (provide a list of necessary agreements and commercial rights); be able to: independently analyze data from ICAO, IATA, Derzhkomstat, websites of airlines, airports; based on technical and other characteristics to make the choice of aircraft, as well as to decide on the effectiveness of the purchase or leasing, lease of aircraft); to calculate the cost of the flight and financial and economic indicators of the project; develop and implement a schedule.

Execution, registration and protection of CD is carried out by the student individually according to methodical recommendations.

The time required to complete the TP is up to 30 hours of individual work.

]	Fotal, he	ours	
№	Theme (thematic section)	Total	Lectures	Labs	Self-study
1	2	3	4	5	6
	Module №1 «Technology of Passenger Services by A	Air Transpo	rt»		
	Aim and Task of the Subject. Description of the Air Transport System.		5 semes	ter	
1.1	Analysis of the Air Transport System of Ukraine. Air Transportation Market Research Methods.	11	2	2 2	5
1.2	International Regulation of Air Transport. National Regulation and Methods of State Regulation of the Air Passenger Transportation Market.	10	2	2 2	4
1.3	Airport Passenger Complexes. Technological Principles of Designing the Passenger Airport Main Functional Zones. Application of methods on the example of Ukrainian Airports .	11	2	2 2	5
1.4	Passenger Registration (check-in) Technology. Technology of Passenger's Departures and Arrivals Service. Transfer and Transit Passengers Service Technology.	10	2	2 2	4
1.5	Service of Passengers with Special Categories: Technologies of Unaccompanied Minors Service; VIP Passengers. Service of Passengers with special Categories.	10	2	2 2	4
1.6	Airline as a Functional System. The task of Forming the Airline's Fleet. Features of Booking Reservation. Passenger on Board Services. Development of an Airline Business Plan.	10	2	2 2	4

2.3. Training schedule of the subject.

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1.7	Standards of Airlines Quality Operation During Transportation of Passengers. Faults in Baggage Transportation. Quality of Air Cargo Services. Handling Companies	10	2	2 2	4
1.8	Formation of an Airline Network in Air Transport System. Methods of calculating the cost of the flight.	12	2 1	2 2	5
1.9	Module Test №1	6	-	2	4
	Total by the module №1	90	17	34	39
	Module №2 «Term Paper»				
2.1	Formation of an airline network in air transport system	30	-	-	30
	Total by the module №2	30	-	-	30
	Total by the subject	120	17	34	69

3. BASIC CONSEPTS OF GUIDANCE ON THE SUBJECT

3.1. Teaching methods

The following teaching methods of subject guidance are

- -- explanatory and illustrative method;
- -- method of problem presentation;
- -- reproductive method;
- -- research method.

The implementation of these methods are carried out during lectures, demonstrations, self-study, work with the educational material, analysis of transport technologies issues.

3.2. List of references (basic and additional)

Basic literature

2.1. Саркисова Е Н. Організація міжніродних пасажирських авіаперевезень: курс лекцій. Кропивницький: ЛА НАУ, 2018. 142 с.

3.2.2. Марінцева К. В. Пасажирські перевезення: підручник. – Київ: НАУ-друк, друге видання 2016. – 228 с.

3.2.3. Наказ від 26.11.2018 № 1239 «Про затвердження Авіаційних правил України «Правила повітряних перевезень та обслуговування пасажирів і багажу». URL: https://zakon.rada.gov.ua/laws/show/z 0141-19

3.2.4. Марінцева К.В. Авіаційні пасажирські перевезення: курс лекцій / Національний авіаційний університет. – Київ: НАУ-друк, друге видання 2016. – 124 с.

3.2.5. Марінцева К.В. Наукові основи та методи забезпечення ефективного функціонування авіатранспортних систем: монографія /МОН; Національний авіаційний університет. – Київ, 2014. – 504 с..

Additional Literature

3.2.6. Марінцева К.В. Перевезення небезпечних вантажів: конспект лекцій/ МОН; Національний авіаційний університет. – Київ, 2013. – 81 с.

3.2.7. Конвенція про уніфікацію деяких правил міжнародних повітряних перевезень : "Монреальська конвенція" : ратифікована Законом України № 685-VI від 17.12.2008 р. – Монреаль, 28.05.1999 р. // Офіційний вісник України. – 2009. – № 33. – С. 169.

3.2.8. Шувалова О.С. Роль державних авіаційних підприемств у розвитку національного законодавства а авіаційній галузі.- Київ: НАҮ, 2012.

3.2.9. Потапенко С.О. Організація системи інформаційного забезпечення взасморозрахунків у комерційній діяльності авіакомпаній. - Київ: НАҮ, 2013.

3.3. Internet Information resource

3.3.1 <u>http://er.nau.edu.ua/handle/NAU/34200?offset=0</u>



4. RATING SYSTEM OF KNOWLEDGE AND SKILLS ASSESSMENT

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

Table 4.1

Kind of Academic Work	Maximum Grade Values				
5 semester					
Module №1 «Technology of Passenger Services by Air Transport					
Carrying out Labs (86 x 8)	64 (total)				
For admission to complete module test N_2I , a student must receive not less than	48 points				
Module test №1	20				
Total by the module №1	100				
Total by the subject	100				
Module №2					
Kind of Academic Work	Maximum Grade Values				
Completion of the Term Paper	60				
Defense of the Term Paper	40				
Completion and Defense of the Term Paper	100				

The credit rating is determined (in points and in a National Scale) based on the results of all types of academic work during the semester.

4.2. Completed types of educational work are credited to the student, if he received a positive rating for them.

4.3. The sum of rating assessments received by the student for certain types of completed academic work is the current modular rating assessment, which is recorded in the module control.

4.4. The final modular rating obtained by the student based on the results of the course defense and defense in points, on the national scale and ECTS scale is entered in the module control, as well as in the study card, individual student curriculum and Diploma Supplement, for example, as follows: 92 / Excellent / A, 87 / Good / B, 79 / Good / C, 68 / Sat./D, 65 / Sat./E, etc.

4.5. The final semester rating is converted into a grade on the national scale and the ECTS scale.

4.6. The final semester rating in points, on the national scale and the ECTS scale is entered in the test report, study card and individual curriculum of the student (record book), for example, as follows: 92 / *Excellent / A*, 87 / *Good / B*, 79 / *Good / C*, 68 / *Sat./D*, 65 / *Sat./E*, etc.

4.7. The Total Grade for the subject is equal to the average grade from Total Semester Grades with its further transformation into national scale and ECTS system.

The Total Grade is recorded to the Diploma Appendix

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АРКУШ ПОШИРЕННЯ ДОКУМЕНТА

№ прим.	Куди передано (підрозділ)	Дата видачі	П.І.Б. отримувача	Підпис отримувача	Примітки

 $(\Phi 03.02 - 02)$

АРКУШ ОЗНАЙОМЛЕННЯ З ДОКУМЕНТОМ

		r 1		
№ 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

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

 $(\Phi 03.02 - 32)$

УЗГОДЖЕННЯ ЗМІН

	Підпис	Ініціали, прізвище	Посада	Дата
Розробник				
Узгоджено				
Узгоджено				
Узгоджено				