



Силабус навчальної дисципліни
«TRANSPORT VEHICLES OPERATION »
Educational Professional Programs: «Air Transportation Management»
«Aerial Works and Services Management»
«Multimodal Transport and Logistics»
«Onboard Support of Air Passenger Transportation»
 Field of study: 27 «Transport»
 Speciality: 275 «Air Transport Technologies»
Specialization: 275.04 «Air Transport Technologies»

Higher Education Degree	First (Bachelor)
Subject status	Academic subject of mandatory component
Course of study	2
Semester	3
Subject volume, ECTS credits / total amount of hours	4,5/135
Language	Ukrainian, English
To be studied (study subject)	Mastering the basics of organizing the ANT movement on the platform; study of schemes of location of specific types of ANT in the area of ground service of certain types of aircraft; mastering of technological schedules for ground maintenance of aircraft; mastering the main technological processes for commercial maintenance of aircraft; mastering the basics of technical operation of ANT and aircraft; study of the organization of advanced systems of maintenance and repair (TO and R) ANT; mastering the main technological processes for maintenance of ANT; study of the main types and models of modern equipment for maintenance, R ANT; mastering modern methods and tools for diagnosing the technical condition of special vehicles at airports.
Why is it interesting and must be learned? (purpose)	The purpose of the discipline is to study the basic principles of operation of aviation ground equipment (ANT), which ensure its effective use in technological processes of air transportation services at civil aviation airports.
What is studied? (learning results)	<ul style="list-style-type: none"> - Take responsibility, show public awareness, social activity and participation in the life of civil society, think analytically, critically understand the world; - Apply, use modern information and communication technologies to solve practical problems in the organization of transportation and design of transport technologies; - Develop, plan, implement methods of organizing safe activities in the field of transport systems and technologies; - Develop and use transport technologies taking into account the requirements for environmental protection; - Find solutions for rational methods of organizing loading and unloading operations. Plan schedules for loading and unloading. To choose mechanisms and means of carrying out loading and unloading works - Choose effective technologies for the interaction of modes of transport. Analyze the possibilities of using different options for the interaction of modes of transport. Be able to automate the process of managing material and related flows in aviation supply chains (transportation, cargo processing, storage, sorting, marking, consolidation, customs clearance, information support, etc.); - Explain the operational, technical and economic, technological, legal, social and environmental efficiency of transportation;

	<ul style="list-style-type: none"> - Use methods of organization of transport and forwarding services of different types of communication; - Know the functionality of global airline sales systems. Be able to find the optimal fare and route of air transportation. Carry out booking and sale of air transportation through global systems of sales of air transport products; - Critically evaluate the scientific values and achievements of society in the development of transport technologies; - Recognize the qualitative and quantitative indicators of operation of vehicles (vessels). Evaluate the design elements of vehicles (vessels). Establish a connection between the structural elements of vehicles (ships)
How is it possible to use the gained knowledge and skills? (competencies)	<ul style="list-style-type: none"> - Ability to work independently and in a team; - Knowledge and understanding of the subject area and understanding of professional activity; - Ability to organize and manage loading and unloading operations and warehousing operations on transport. Ability to apply modeling and optimization methods for effective management of complex technological and organizational and technical transport complexes; - Ability to organize and manage the transportation of goods (by mode of transport). Ability to apply modeling and optimization methods for effective management of complex technological and organizational and technical transport complexes; - Ability to organize and manage the transportation of passengers and luggage (by mode of transport); - Ability to quickly manage the flow of traffic; - Ability to organize the interaction of modes of transport; - Ability to design transport (transport-production, transport-warehousing) systems and their individual elements. Ability to develop and use appropriate software for automation of transport systems and processes; - Ability to evaluate plans and proposals for the organization and technology of transportation, drawn up by other entities, and make the necessary changes based on technical and operational parameters and principles of operation of facilities and devices of transport infrastructure, vehicles (vessels); - Ability to develop and use mathematical and computer models of transport systems and processes for scientific and practical research; - Ability to synthesize the data structure necessary for the construction of information systems on the basis of certain requirements. Design the composition of interfaces for application programming (API) and for organizing the construction of the user interface when working with the database; - Ability to solve complex specialized problems and solve practical problems in the field of transport using theories and methods of modern transport science based on a systems approach and taking into account the complexity and uncertainty of the conditions of transport systems; - Ability to generate new ideas (creativity); - Skills for safe activities; - Knowledge and understanding of the subject area and understanding of professional activity; - Ability to abstract thinking, analysis, synthesis; - Ability to organize and manage the transportation of goods by different modes of transport
Academic logistics	<p>Course content: Module № 1 "Operation of vehicles to ensure air transportation"</p> <p>Topic 1. Operation of vehicles (vehicles) to ensure air transportation.</p> <p>Topic 2. Operation of in-station mechanization for passenger service.</p> <p>Topic 3. Organization of aircraft parking on the platform.</p> <p>Topic 4. Operation of platform buses.</p> <p>Topic 5. Operation of passenger cars and electric ladders.</p> <p>Topic 6. Operation of passenger landing galleries.</p>

	<p>Topic 7. Operation of ANT to ensure postal and freight traffic.</p> <p>Topic 8. Operation of self-propelled container loaders.</p> <p>Module № 2 "Maintenance of aircraft and aviation ground equipment"</p> <p>Topic 1. System of maintenance and special vehicles of airports.</p> <p>Topic 2. Strategies TO ANT.</p> <p>Topic 3. Maintenance of special vehicles according to the actual technical condition.</p> <p>Topic 4. Pre-operational training of ANT.</p> <p>Topic 5. Rules of operation of ANT.</p> <p>Topic 6. External supervision of SM airports.</p> <p>Topic 7. Prevention of corrosion of bodies and wings of SM.</p> <p>Topic 8. TO ICE.</p> <p>Topic 9. Technical diagnostics of special vehicles of airports.</p> <p>Types of classes: lectures, laboratory classes</p> <p>Teaching methods: explanatory-illustrative method; method of problem statement; reproductive method; research method</p> <p>Forms of study: full-time, part-time</p>
Prerequisites	The discipline is based on knowledge of such disciplines as: "Business Ukrainian", "General course of transport", "Transport infrastructure", "Transport geography", "Fundamentals of the theory of transport processes and systems", "Professional practice Introduction to the profession".
Post-requisites	The discipline is the basis for the study of such disciplines as: "Philosophy", "Information systems and technologies in transport", "Research of transport operations", "Logistics operations in transport".
Information support from the fund and repository of NAU library	<p>Educational and scientific literature:</p> <ol style="list-style-type: none"> 1. Тамаргазін О.А., Білякович О.М., Варюхно В.В., Нікулін С.М. Технічна експлуатація авіаційної наземної техніки: Підручник / О.А.Тамаргазін, О.М.Білякович, В.В.Варюхно, С.М.Нікулін. – К.: ДП «Розвиток» МВС України, 2017. – 320 с. 2. Дмитриченко М.Ф., Міланенко О.А., Білякович О.М., Савчук А.М., Туриця Ю.О. Підвищення надійності транспортних засобів шляхом застосування модифікаторів тертя: монографія / М.Ф.Дмитриченко, О.А. Міланенко, О.М.Білякович, А.М.Савчук, Ю.О.Туриця. – К.: НТУ, 2017. – 104 с. 3. Технологии наземного обслуживания воздушных судов: Лабораторный практикум для студентов-иностранцев / сост. О.Н.Білякович, А.В.Данилейко, Л.Г.Білякович – К.: НАУ-друк., 2017. – 68 с. 4. Repair and Maintenance Information - RMI [Електронний ресурс]. – Режим доступу: https://www.acea.be/industry-topics/tag/category/repair-and-maintenance-information-rmi 5. Maintenance Tech., Inc., (MTI) – 1 [Електронний ресурс]. – Режим доступу: https://www.carwashtec.com/contact-car-wash-equipment-suppliers 6. Periodic Technical Inspection (APK) [Електронний ресурс]. – Режим доступу: https://www.rdw.nl/over-rdw/information-in-english/private/periodic-technical-inspection-apk
Academic logistics	Classroom of theoretical training, laptop, mobile device (phone, tablet) with Internet connection for: communication and surveys; homework; performing tasks of independent work; passing the test (current, boundary, final control)
Prerequisites	Graded Test, Examination, Calculation and Graphic Paper, Testing
Post-requisites	Air Transportation Management Department
Information support from the fund and repository of NAU library	Faculty of Transport, Management and Logistics

Academic logistics		Goncharenko Andrii Oleksandrovyh Position: Associate Professor Scientific Degree: PhD in Engineering Academic Status: Associate Professor Teacher profile: https://scholar.google.com.ua/citations?hl=ru&user=MZC0DewAAAAJ Tel.: 044 406-70-94 E-mail: andrii.honcharenko@npp.nau.edu.ua Location: 2.113a
Prerequisites	Author's course, teaching in English and Ukrainian	
Post-requisites	https://er.nau.edu.ua/handle/NAU/34200	