



SYLLABUS OF THE SUBJECT

«Informational Systems and Technologies on Transport»

Educational Professional Programs:

«Air Transportation 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 professionally-oriented subjects cycle
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)	Functional capabilities and practical skills of using modern information technologies and systems in the daily activities of specialists of transport companies and organizations.
Why is it interesting and must be learned? (purpose)	The current state of management of logistics information processes requires knowledge of skills and abilities to work in an integrated environment of digital technologies and systems. Therefore, the study of information technology and systems is extremely important for the modern specialist.
What is studied? (learning results)	<ul style="list-style-type: none"> - Critically evaluate the scientific values and achievements of society in the development of transport technologies; - Apply, use modern information and communication technologies to solve practical problems in the organization of transportation and design of transport technologies; - Choose information systems for transportation. Operate automated control systems and navigation systems in the transportation process. Use electronic cards.
How is it possible to use the gained knowledge and skills? (competencies)	<ul style="list-style-type: none"> - 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 systematic approach and taking into account the complexity and uncertainty of the conditions of operation of transport systems; - Skills in the use of information and communication technologies; - Ability to generate new ideas (creativity); - Ability to work independently and in a team; - Knowledge and understanding of the subject area and understanding of professional activity; - Ability to use modern information technologies, automated control systems and geographic information systems in the organization of the transportation process.
Academic logistics	<p>Subject program: Module № 1 «Modern Informational Technologies on Transport»</p> <p>Topic 1. Information as the basis for modern technologies.</p> <p>Topic 2. Information processes of transport logistics.</p> <p>Topic 3. System analysis of information technologies.</p> <p>Topic 4. Information technologies in transport logistics.</p> <p>Topic 5. Analysis, processing, and storage of information, documents of the transport company.</p>

	<p>Topic 6. Basics of preparation of documents and reports.</p> <p>Topic 7. Logistics management and cargo identification technologies.</p> <p>Topic 8. Modern information technologies for managing information processes of the enterprise.</p> <p>Module № 2 «Functionality and application of Informational Systems»</p> <p>Topic 1. Definition, classification and structural components of information systems.</p> <p>Topic 2. Integrated ERP-enterprise management systems.</p> <p>Topic 3. Software modules "Logistics" in modern ERP-systems.</p> <p>Topic 4. Integrated logistics CRM systems.</p> <p>Topic 5. Human resources management by means of HPM-system.</p> <p>Topic 6. RDM-systems of information processes and production document management.</p> <p>Topic 7. Methods of implementing an integrated information system in a logistics company.</p> <p>Topic 8. Problems of choosing the implementation and operation of integrated logistics systems.</p> <p>Topic 9. Prospects for the development of information technology systems</p> <p><u>Kinds of sessions:</u> lectures, laboratory classes</p> <p><u>Teaching methods:</u> explanatory-illustrative method; problem statement method; reproductive method; research method</p> <p><u>Modes of study:</u> full-time</p>
Prerequisites	This subject is the basis for studying such subjects, as «Higher Mathematics», «Transport Infrastructure», «Transport Vehicles»
Post-requisites	This subject is basic for studying subjects, as: «Organization of Databases», «Operation Research on Transport», «Logistics Operations on Transport», «Informational Support of Multimodal Transportation».
Information support from the fund and repository of NAU library	<p>NAU Library:</p> <ol style="list-style-type: none"> 1. Інформаційні системи і технології : навч. посіб. / [П. М. Павленко, С. Ф. Філоненко, К. С. Бабіч та ін.]. – К. : НАУ, 2013. – 324 с. 2. Ситнік Б. Т. Основи інформаційних систем і технологій: Навч. посібник. – Харків: УкрДУЗТ, 2019. – 175 с., рис. 27, табл. 7. ISBN. 3. Кір'янов О. Ф. Інформаційні технології на автомобільному транспорті : навч. посіб. / О. Ф. Кір'янов, М. М. Мороз, Ю. О. Бойко; Кременчуц. нац. ун-т ім. М. Остроградського. - Харків : Друкарня Мадрид, 2015. - 270 с. 4. Сістук В. О. Опорний конспект лекцій з дисципліни «Сучасні інформаційні технології на транспорті» для студентів спеціальності 274 «Автомобільний транспорт» всіх форм навчання [В.О. Сістук]. – Кривий Ріг, ДВНЗ «КНУ», 2018. –51 с. <p>NAU Repository:</p> <p>https://er.nau.edu.ua/handle/NAU/9192</p>
Location and logistics	Classroom of theoretical training, laptop, mobile device (phone, tablet) with Internet connection for: communication and surveys; homework; performing tasks of independent work; testing (current, boundary, final control)
Semester control, examination techniques	Examination, Homework, Testing
Department	Air Transportation Management Department
Faculty	Faculty of Transport, Management and Logistics

Lecturer(s)		SHEVCHUK DMYTRO OLEHOVYCH Position: Head of the Department, Professor Scientific Degree: Doctor of Engineering., Senior Researcher Academic Status: Associate Professor Teacher profile: https://scholar.google.com/citations?view_op=list_works&hl=ru&user=KG9yZUQAAAAJ Tel.: 044 406 -72-85 E-mail: dmytro.shevchuk@npp.nau.edu.ua Location: 2.102
Originality of the subject	Author's course, teaching in English	
Link to the subject	https://er.nau.edu.ua/handle/NAU/34200	