



SYLLABUS OF THE SUBJECT

«Ergonomic Support of Transport Processes»

Educational Professional Program: «Air Transportation Management»

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	1
Semester	1
Subject volume, ECTS credits / total amount of hours	3,5/105
Language	Ukrainian, English
To be studied (study subject)	Design of ergatic transport systems and ensuring their efficiency through the synergetic effect of the system "machine-operator-environment".
Why is it interesting and must be learned? (purpose)	<p>A comprehensive approach is used to study the efficiency of transport systems and processes, which are considered through the principles of ergonomics and components "machine (technology), operator (person), environment." This approach meets the requirements of modern science of active systems management. Knowledge: standards and genesis of ergonomics; definitions and terminology on ergonomics and ergatic transport systems; patterns of causes and consequences of the interaction of the components of the ergonomic system.</p> <p>Skills: to determine the characteristics of the components of the ergatic transport system; use the features of the relationship between the limited human capabilities of the specialist (aviation specialist) and the efficiency of ergatic transport; to study the state of the ergatic transport system through the definition of its main indicators and entropy, to develop recommendations for the development of the transport system.</p>
What is studied? (learning results)	<p>Knowledge: standards and genesis of ergonomics; definitions and terminology on ergonomics and ergatic transport systems; patterns of causes and consequences of the interaction of the components of the ergonomic system.</p> <p>Skills: to determine the characteristics of the components of the ergatic transport system; use the features of the relationship between the limited human capabilities of the specialist (aviation specialist) and the efficiency of ergatic transport; to study the state of the ergatic transport system through the definition of its main indicators and entropy, to develop recommendations for the development of the transport system.</p>
How is it possible to use the gained knowledge and skills? (competencies)	<ul style="list-style-type: none"> - Ability to evaluate and ensure ergonomic efficiency of transport technologies; - Ability to analyze and forecast the parameters and performance of transport systems and technologies, taking into account the impact of the external environment; - Ability to design transport (transport-production, transport-warehousing) systems and their individual elements.

Academic logistics	Subject program: Module №1 "Ergonomics of transport systems and processes" Topic 1. Characteristics of ergonomics as a science Topic 2. Component human operator in the ergatic transport system Topic 3. Component "machine (technology) ergatic transport system Topic 4. Component "environment" of the ergatic transport system Topic 5. Working conditions in the working environment of transport systems Topic 6. The efficiency of the operator in the information flows of transport systems and processes Topic 7. Efficiency of ergatic transport systems and processes Topic 8. Entropy and turbulence of ergatic transport systems and processes Types of classes: lectures, laboratory classes Teaching methods: explanatory-illustrative method; problem statement method; reproductive method; research method Forms of study: full-time, part-time	
Prerequisites	The subject is based on following subjects «General Course of Transport», "Technical and Economic Research of Transport Development".	
Post-requisites	The subject is base for studying the following subjects: "Transport and Logistics Systems and Processes", "Efficiency of Air Transportation".	
Information support from the fund and repository of NAU library	Basic concept of guidance : 1. Скрипець А.В. Інженерна психологія, ергономіка та людський чинник в авіації / А.В. Скрипець, О.Ю. Буров, В.В. Павлов. – К.: НАУ, 2011. – 400 с. 2. Скрипець А.В. Основи ергономіки / А.В. Скрипець. – К.: Вид-во Нац. авіац.ун-ту «НАУ-друк», 2009. – 124 с.	
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	Graded Test, Testing	
Department	Air Transportation Management Department	
Faculty	Faculty of Transport, Management and Logistics	
Lecturer(s)		SHEVCHENKO YULIYA VIKTORIVNA Position: Associate Lecturer Scientific Degree: PhD in Economics Academic Status: Associate Professor Teacher profile: https://scholar.google.ru/citations?user=1LshTw0AAAAJ&hl=ru Тел.: 044 406-70-94 E-mail: yuliia.shevchenko@npp.nau.edu.ua Location: 2.105
Originality of the subject	Author's course, teaching in English	
Link to the subject	https://er.nau.edu.ua/handle/NAU/42471	