SYLLABUS OF THE SUBJECT

«RELIABILITY AND EFFICIENCY MANAGEMENT OF TRANSPORT SYSTEMS AND TECHNOLOGIES»

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	The second level (master)
Subject status	Academic subject of selective subjects cycle
Course of study	1
Semester	2
Subject volume, ECTS credits / total amount of hours	4,0/120
Language	Ukrainian, English
To be studied (study subject)	This subject is an integral part of the theoretical basis of knowledge and skills for the study of technological disciplines for training in the field of transportation and transport systems.
Why is it interesting and must be learned? (purpose)	The purpose of studying the subject is to form a system of scientific knowledge and practical skills of specialists in transport technology in the field of efficient operation of transport systems and technologies and the provision of air transport.
What is studied? (learning results)	- Search for the necessary information in the scientific and technical literature, databases, other sources, analyze and objectively evaluate information in the field of transport systems and technologies and related cross-sectoral issues; - Freely discuss in state and foreign languages issues of professional activity, projects and research in the field of transport systems and technologies orally and in writing; - Make effective decisions in the field of transport systems and technologies, taking into account technical, social, economic and legal aspects, generate and compare alternatives, assess the necessary resources and constraints, analyze risks; - Develop new and improve existing transport systems and technologies, define development objectives, existing constraints, efficiency criteria and scope; - Manage complex technological and production processes of transport systems and technologies, including unpredictable and those that require new strategic approaches; - Use specialized software for analysis, development and improvement of transport systems and technologies; –- Investigate theoretical and experimental models for assessing the reliability and efficiency of transport technologies by mode of transport.
How is it possible to use the gained knowledge and skills? (competencies)	- Ability to motivate people and move towards a common goal; - Ability to search, process and analyze information from various sources; - Ability to develop and manage projects; - Ability to generate new ideas (creativity); - Ability to study and manage the operation of transport systems and technologies; - Ability to identify and apply promising areas of modeling of transport processes; - Ability to manage freight transport by mode of transport;

	- Ability to manage passenger traffic by mode of transport; - Ability to use specialized software to solve complex problems in the field of transport systems and technologies; - Ability to apply methods of modeling and optimization to study and improve the efficiency of aviation transport systems and their management processes.
Academic logistics	**Course content: Module № 1 "Management of reliability and efficiency of transport systems and technologies"** Topic 1. The purpose and objectives of the discipline. Topic 2. The concept of efficiency and reliability of transport systems in the organization of air transportation. Topic 3. Methods of studying the laws of operation of air transport systems Topic 4 Description of the air transport system. Topic 5. Analysis of the air transport system of Ukraine. Topic 6. Modeling the operation of air transport systems. Topic 7. Modeling the operation of airlines and their subsystems. Topic 8. Methods for determining the economic efficiency of air transport systems. **Teaching methods**: explanatory-illustrative method; problem statement method; interactive methods; research method **Forms of study**: full-time
Prerequisites	The subject is based on knowledge of such subjects as: "Methodology of applied research in the field of transport technologies (by type)", "Project management in the transport industry", "Management in integrated transport systems"
Post-requisites	The subject is the basis for the study of such subjects as: "Forwarding Activity", "Air Transport Engineering", "Mathematical methods of modeling and optimization of transport systems and processes", "Course project" Project Management in the transport industry ""
Information support from the fund and repository of NAU library	1. Акімова Т.А. Методика визначення конкурентоспроможності аеропорту. / Т.А. Акімова // Вісник Хмельницького національного університету. – 2018. – №15. – С. 234-238 2. Транспорт і зв'язок України – 2018. Статистичний збірник [Текс]/ за ред. Н.С. Власенко. – К.: ТОВ «Август Трейд» - 272с. 3 Козлюк І.О. Моделювання процесів функціонування авіаційного транспорту з метою прогнозування показників його діяльності. / І.О. Козлюк // Наукоємні технології. 2017.- №8 (20). С. 100-105. 4. Марінцева К.В. Наукові основи та методи ефективного функціонування авіатранспортних систем: монографія/ К.В. Марінцева. – К.: НАУ, 2014. – 504с. 5. Steven Show. Airline Marketing and Management. British Library Cataloguing in Publication Data Shaw, Stephen, 2017. - Airline marketing and management. - 6th ed. 1. Airlines - Management 2. Airlines - Marketing I. Title/ by Stephen Shaw. Ashgate Publishing Company. – P. 336. 6. www.avia.gov.ua 7. https://mtu.gov.ua/timeline/Aviatransport.html 8. https://ips.ligazakon.net/document/TM028161 9. https://visnyk-geo.knu.ua/wp-content/uploads/2016/04/13-63.pdf
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)		**AKMALDINOVA VICTORIA YEVHENIVNA** **Position:** Senior Lecturer **Scientific Degree:** - **Academic Status:** - **Teacher profile:** https://scholar.google.com/citations?user=3zAFsjwAAAAJ&hl=uk **Тел.:** 044 406-70-94 **E-mail:** viktoriia.akmaldinova@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/34200	