



	<p>Syllabus on « Logistics Systems Design »</p> <p>Educational Professional Program: “Logistics”</p> <p>Specialty: 073 “Management” Field of study: 07 “Management and Administration”</p>
Level of postsecondary education	Master
Course status	Mandatory Subject
Year	1
Semester	1
Credit hours/academic hours	5,5/165
Language of course delivery	English
Course description	Theoretical and practical aspects of designing logistics systems
Course rationale (aim)	The aim of the subject is to form professional competencies in the principles and technology of forming logistics systems at macro, mezo and micro levels, as well as practical skills in designing logistics systems at enterprise level
Learning outcomes	<ul style="list-style-type: none"> – critically consider, choose and use the necessary scientific, methodical and analytical tools for management in unpredictable conditions; – to identify problems in the organization and justify the methods of solving them; – to design effective management systems for organizations; – to justify and manage projects, generate entrepreneurial ideas; – to demonstrate in-depth knowledge of the essential properties of modern logistics concepts and structural features of the formation of logistics systems, patterns of design, operation and development of logistics systems; – to apply specialized conceptual knowledge, which is the basis for original thinking and innovation, in particular, in the context of research of the competitiveness of logistics systems
Acquired skills and competencies	<ul style="list-style-type: none"> – ability to solve complex problems and problems in the field of logistics business process management or in the learning process, which involves research and / or innovation and is characterized by uncertainty of conditions and requirements; – ability to conduct research at the appropriate level; – ability to generate new ideas (creativity); – ability to abstract thinking, analysis and synthesis; – ability to form conclusions and recommendations based on research results, calculate the effectiveness of scientific research; – ability to develop projects, manage them, show initiative and entrepreneurship; – ability to identify ways and sources of funding, conduct economic assessment and analysis of social costs and benefits; – ability to design, maintain and improve logistics management systems; – ability to determine the capacity and evaluate the efficiency of the logistics system; – ability to design supply chains, to coordinate the strategy of the supply chain with the business strategy of the enterprise;

	<ul style="list-style-type: none"> – ability to choose methods and tools of analysis and data processing in logistics; – ability to make innovative decisions to optimize logistics business processes
Course content	<p>Course content: Methodological bases of analysis and synthesis of logistics systems. Characteristics and prerequisites of designing, forming and optimizing logistics systems. Principles of designing logistics systems. Generalized procedure for developing a logistics system. Design of integrated logistics systems. Design of logistics systems for resource concentration. Basics of designing concentration and distribution systems of value creation. Design of logistics systems for the distribution of products and services. Design of warehouses and terminals. Basics of the organization of transport logistics systems</p> <p>Types of classes: Lectures, Practicals</p> <p>Teaching methods: lectures using multimedia presentations, work in small groups, seminar-discussion, brainstorming, solving situational tasks, cases, business game.</p> <p>Format of learning: full-time</p>
Prerequisites	“Strategic Supply Chain Management”, “Business Analysis and Data Processing”, “HR-management”, “Logistics Management”
Application	Pre-diploma Practice and Qualification Paper
Information Resources	<p>NAU repository: Course Training Program, list of questions for module test and Graded Test, educational and periodical literature on Logistics Systems Design.</p> <p>List of references</p> <ol style="list-style-type: none"> 1. Global Supply Chain and Operations Management: A Decision-Oriented Introduction to the Creation of Value // Dmitry Ivanov, Alexander Tsipoulanidis, Jörn Schönberger. Springer, 2018. 578 p. 2. Omera Khan. Product Design and the Supply Chain: Competing Through Design. Kogan Page, 2018. 264 p. 3. Managing Global Supply Chains // Ron Basu, J. Nevan Wright. Taylor & Francis, 2016. 470 p. 4. Sharan Srinivas, Suchithra Rajendran, Hans Ziegler. Supply Chain Management in Manufacturing and Service Systems: Advanced Analytics for Smarter Decisions. Springer Nature, 2021. 278 p. 5. Watson Michael. Supply Chain Network Design: Applying Optimization and Analytics to the Global Supply Chain. 2015. 301 p. 6. Mikihisa Nakano. Supply Chain Management: Strategy and Organization. Springer, 2019. 239 p. 7. Savchenko L., Grygorak M. Determination of parameters of the stochastic inventory management system in the conditions of economically-based shortage. Eastern-European Journal of Enterprise Technologies. – 1/3(97) 2019. P.37–46. URL: https://doi.org/10.15587/1729-4061.2019.156475.
Location and technical support	Auditoriums of theoretical training, practicals, computer software, multimedia equipment, Google Classroom
Assessment methods, final examinations	Module Test, Course Project, Examination
Department	Logistics Department
Faculty	Faculty of Transportation, Management and Logistics

Instructor		SAVCHENKO LIDIIA VOLODYMYRIVNA Position: associated professor Teacher's profile: http://ftml.nau.edu.ua/images/klog/Resume/cv_savchenko.jpg Phone.: +38(044) 406-7821 E-mail: lidia.savchenko@npp.nau.edu.ua
Course authenticity	Combining and constantly updating modern material on Logistics Systems Design, applying in practical training of original business cases	
Course URL	In process	