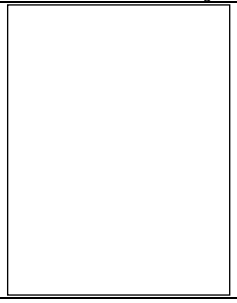
	Syllabus on **«INFORMATION SYSTEM AND SMART-TECHNOLOGIES IN LOGISTICS»** **Educational Professional Program:** **«Logistics»** Specialty: 073 “Management” Field of study: 07 “Management and Administration”
Level of postsecondary education	Master
Course status	Subject Selected by Students
Year	1
Semester	1
Credit hours/academic hours	120/4,0
Language of course delivery	English
Course description	This educational discipline is the theoretical and practical basis of the set of knowledge and skills that form the profile of a specialist in the field of logistics. The tasks of the educational discipline are: acquisition of theoretical knowledge on the organization of the information system of logistics of modern enterprises; application of modern information technologies in logistics; formation of management decision-making skills in logistics with the help of information systems and technologies.
Course rationale (aim)	The aim of the subject is the formation of a system of knowledge on the methodology and tools for the construction and use of various types of information systems and technologies, namely the use of the R-Project - a free software environment for statistical computing, the ability to use modern methods and innovative approaches in practice to justify strategic decisions in supply chain management.
Learning outcomes	PLO8. Apply specialized software and information systems to solve organizational management problems. PLO13. Be able to plan and implement information, methodological, material, financial and personnel support of the organization (unit). PLO14. 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. PLO16. Use information technology and information systems to monitor and optimize logistics processes and systems based on the processing of large databases. PLO19. Be able to use methodological tools to justify strategic decisions on the management of logistics business processes and the formation of perfect supply chains.
Acquired skills and competencies	EC1. Ability to solve complex tasks 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. GC1. Ability to conduct research at the appropriate level. GC3. Skills in the use of information and communication technologies. GC10. Ability to make decisions in complex and unpredictable conditions that require the use of new logistics approaches. PC7. Ability to develop and manage projects, show initiative and

	entrepreneurship. PC9. Ability to analyze and structure the problems of the organization, make effective management decisions and ensure their implementation. PC12. Ability to design, maintain and improve logistics management systems. PC15. Ability to choose methods and tools for analyzing and processing data in logistics. PC16. Ability to business intelligence and processing of large databases to improve supply chains (networks).
Course content	**Course content:** Theoretical foundations of the use of information systems and technologies in logistics. Information systems, their functions and functional parameters. Information and computer technologies in the logistics processes of enterprises. Analysis of software products for solving logistics and supply chain management problems. Information provision of business processes in the logistics system of the enterprise. Electronic logistics and cloud technologies. Modern concepts and smart technologies in logistics. Problems of information security in logistics systems. **Types of classes:** lectures, Laboratory classes **Teaching methods:** explanatory-illustrative method; method of problem statement; reproductive method; research method; business game. **Format of learning:** full-time
Prerequisites	"Applied Research Methodology", "Logistics Systems Design" and "Logistics Management"
Application	-
Information Resources	**NAU repository:** Course Training Program, list of questions for module test and Graded Test, educational and periodical literature on information system and smart-technologies in logistics. **List of references** 1. R Core Team, R. (2020). The R project for statistical computing. 2. Patil, I. (2021). Visualizations with statistical details: The'ggstatsplot'approach. Journal of Open Source Software, 6(61) 3. Winter, B. (2019). Statistics for linguists: An introduction using R. Routledge. 4. Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook (p. 197). Springer Nature. 5. Bivand, R., Millo, G., & Piras, G. (2021). A review of software for spatial econometrics in R. Mathematics, 9(11), 1276.
Location and technical support	Auditoriums of theoretical training, Laboratory classes, computer software, multimedia equipment, Google Classroom
Assessment methods, final examinations	Module Test, Graded Test
Department	Logistics Department
Faculty	Faculty of Transportation, Management and Logistics
Instructor	 **KUNYTSKA OLGA MUKOLAIIVNA** **Position:** associated professor **Teacher's profile:** In process **Phone.:** +38(044) 406-7821 **E-mail:** olha.kunytska@npp.nau.edu.ua **Office**: 2.126

Course authenticity	Combining and constantly updating modern material on logistics audit, applying in practical training of original business cases and developed business games
Course URL	In process