GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Logistics and storage, PG_00056145		
Field of study	Management and Production Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	6	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Zakład Technologii Maszyn i Automatyzacji Produkcji -> Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Aleksandra Wiśniewska	
	Teachers		

Lesson types and methods of instruction							
	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	30.0	0.0	60
	E-learning hours included: 0.0						
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/my/						

Learning activity and number of study hours					
	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	60	0.0	0.0	60

Subject objectives	The student learns the goals and principles of the logistics system in the enterprise. By deepening the knowledge and performing simple exercises related to the analyzed areas of issues in the field of logistics and warehousing, the student can independently design a logistics system, starting from the development of a supply system and an optimized technological line, through the evaluation and selection of suppliers, and ending with efficient distribution.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W05] has systematized, theoretically founded knowledge of modelling the operation of production systems with various structures and forms of their organization and the analysis of production processes using computer simulation methods	The student knows and is able to identify the structures and forms of production. The student is able to analyze the goals of the designed object and choose the form of production organization and process parameters ensuring the achievement of the assumed goals. Student uses computer-aided analysis for troubleshooting and design objects: their structure and functional relationships.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation
	[K6_K03] is aware of the social role of a graduate of a technical university, understands the importance of non-technical aspects and effects of engineering activities including their impact on the environment and responsibility for decisions, sees the need to formulate and provide the public with information and opinions on the achievements of technology, correctly identifies and resolves dilemmas associated with thejob of an engineer	The student understands the impact of his actions and decisions on the quality and safety of other people's work. The student is able to formulate messages (create reports, instructions and other documents) using standardization and visualization, so that the message created for the recipients is simple and understandable.	[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work
	[K6_W06] has knowledge of the life cycle of products and mechanical devices and systems, in the field of machine parts manufacturing techniques, as well as the possibilities and trends in the development of machines and production devices and process control	The student knows the types of products and the differences between managing a production company and managing a service company. Based on the acquired knowledge of production systems, the student knows the specificity of production processes as well as the principles, methods and tools of production control. Based on the acquired knowledge of production processes and technical and information resources, the student is able to select methods and tools for analysis, control and optimization ensuring high quality and efficiency of production control processes.	[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge
	[K6_U11] is able to identify and formulate simple engineering tasks related to the diagnostics of the technical condition of machines and devices using appropriate methods, techniques and tools	The student is able to determine the indicators and measures of equipment effectiveness and their impact on the stability and efficiency of the analyzed or designed logistics system or warehouse space.	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K6_U06] when formulating and solving engineering tasks a student can see aspects of system management and organization of individual and as a team, taking into account the human factor, has necessary peparation for work in an industrial environment, and knows the rules and standards related to occupational health and safety	The student identifies the structural and functional relationships between the elements of the analyzed or designed system. The student is able to analyze material and information flows in a given system and is able to identify places generating losses in the value chain (value stream mapping). The student is able to determine the level of risk and indicate activities that reduce the level of risk or maintain the risk at an acceptable level.	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment

Subject contents	**Lectures** 1. Logistics - definitions and goals of logistics. Definitions. 2. Logistics system and process. Transport susceptibility of various types of goods. 3. Logistics: procurement, production, distribution. 4. Logistics infrastructure - material flow: types of warehouses; movement of goods through the warehouse; technical means used in the warehouse; methods of identifying commodity units; Pareto principle - scope of application; rules for arranging goods in the warehouse. 5. Logistic infrastructure - information flow: application of the probability theory; basic methods of inventory management (ABC / XYZ, EOQ, MRP, DRP, JIT). 6. Designing logistic systems and storage spaces. 7. Analysis of the effectiveness of logistics systems. 8. Provisions of EU Directives and provisions of technical supervision. **Project - example** Optimization of logistics processes in a selected production or service company 1. Responsibilities of employees 2. Company structure 3. Processes taking place in the enterprise 4. Process list (hierarchy) 5. Sales process card 6. Storage process card (storage of semi-finished products) 7. Procurement process card 8. Transport process card 9. Production process card 10. Complaint process card 11. Process improvement: • Storage process • Procurement process • Production process
Prerequisites and co-requisites	Knowledge of issues related to project management and human resources. Knowledge of issues related to the basics of production and service management.
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
tests	60.0%	50.0%
project	60.0%	50.0%

Recommended reading	Basic literature	Szymonik Andrzej , Chudzik Daniel, Nowoczesna koncepcja logistyki produkcji, Difin 2020 Rudawska Anna, Logistyka procesów produkcji, Wydawnictwa Komunikacji i Łączności WKŁ 2016 Gwynne Richards, Zarządzanie logistyką magazynową, Wydawnictwo Naukowe PWN 2021 Jacyna Marianna, Lewczuk Konrad, Projektowanie systemów logistycznych., PWN 2016 Bukowski L., Zapewnienie ciągłości dostaw w zmiennym i niepewnym otoczeniu., WSB 2016 Materials and articles provided by the teacher
	Supplementary literature	Wojewódzka-Król Krystyna , Rolbiecki Ryszard, Infrastruktura transportu. Europa, Polska teoria i praktyka, Wydawnictwo Naukowe PWN 2018 Pfohl Hans-Christian, Zarządzanie logistyką. Funkcje i Instrumenty., Biblioteka logistyka 1998 Skowronek Czesław, Sarjusz-Wolski Zdzisław, Logistyka w przedsiębiorstwie., PWE 2013 Materials and articles provided by the teacher
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Choosing a storage strategy. Arrangement of goods in the warehouse in accordance with the storage strategy. Supplies management. Selection of technical equipment for optimal handling of the warehouse. Logistics objectives. Definitions. Transport susceptibility of various types of goods. Types of magazines. The flow of goods through the warehouse. Technical measures used in the warehouse. Methods of identifying commodity units. The Pareto principle - scope of application. Rules for arranging goods in the warehouse. Application of the probability theory. Basic inventory management methods: ABC / XYZ, EOQ, MRP, DRP, JIT. Provisions of EU Directives and provisions of technical supervision.	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.