Course title	SAP ERP and Other IT Tools in Logistics and Mobility	ECTS code	14.3.EE.SZ.3589
		ECTS credits	2

Name of unit administrating study	OTHER	Field of study	Economics	Field of specialisation	L&M;
Teaching staff	Agnieszka Szmelter-Jarosz, Ph.D. ; Dorota Książkiewicz, Ph.D.				

Number of hours											
Lectures	0	Classes		Tutorials	0	Laboratory	30	Seminars	0	Language classes	0

Forma aktywności		Year&Type of studies*	2 SS2,
Hours with the participation of the academic teacher (including office hours, exams, others):		Semester:	3,
Hours without the participation of the academic teacher (student's self-study, homeworks):		Type of course:	obligatory
Total number of hours:	0	Language of instruction:	English

Teaching form	in-class learning
Teaching methods	Activating methods in training classes, Discussion, questioning, Work in computer laboratories, Case studies, Didactic games,

Prerequisites (required courses and introductory requirements)

Required courses	Passing the courses Managerial Economics and Supply Chain Management
Introductory requirements	Knowledge: Basic concepts and laws in the field of microeconomics. Basic knowledge of logistics processes and systems, supply chain management Skills: computer skills (Windows, MS Office), basics of the English language, knowledge of elements of logistic processes, the ability to organize relations between events and activities

Assessment method, forms and criteria

Assessment method	Course completion (graded)
Assessment criteria	Final test: 51-60% - dst, 61-70% - dst +, 71-80% - db, 81-90% - db +, 91-100% - very good Possibility to receive additional points for activity The individual project will constitute 50% of the final grade The knowledge test will account for 50% of the final grade A positive mark should be obtained for both the individual project and the knowledge test

Course objectives

To acquaint students with contemporary concepts of resource management in an enterprise.

To familiarize students with the classification of IT tools for resource planning in logistics.

To familiarize students with the circulation of information and documentation in the enterprise.

To prepare students to use advanced solutions in the field of IT systems in logistics, in particular with global ERP-class IT systems.

To prepare students to use IT solutions for warehouse management.

To familiarize students with work based on the case study method.

Learning outcomes

Knowledge	E2_W08	The student has an in depth knowledge of the processes taking place in enterprises and economic organisations
	E2_W08	The student understands the flow of information (and documentation) in logistics processes and systems, in particular in IT systems.

Verification of learning outcomes - Knowledge

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_W08			X							X	

Skills	E2_U06	The student uses the acquired knowledge in practice, supplementing it with an independent critical analysis of the effectiveness and usefulness of IT solutions in logistics
	E2_U06	The student is able to navigate in ERP and WMS class transaction systems and carries out business transactions

Verification of learning outcomes - Skills

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_U06			X					X	X	X	

Attitudes	E2_K04	The student is ready to think and act in an entrepreneurial manner; makes decisions related to the implementation of logistics processes using IT tools
	E2_K04	The student is able to prioritize and plan activities related to resource management in relation to the customer's demand

Verification of learning outcomes - Attitudes

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_K04								X	X	X	

Course contents

1. Introduction to IT in logistics

2. Introduction to working using the ERP SAP S4/HANA system

3. Basic functionalities, database, transactions, navigation in the system

4. Case studies - simulations of real logistics processes in a production and trade company on the example of the SD module (sales and distribution):

4.1. Create a new customer record in the database

4.2. Entering an inquiry from the customer

4.3. Order registration from the customer

4.4. Launching the delivery process

4.5. Creation of a picking list and registration of shipment sending.

4.6. Issuing a sales invoice

4.7. Registration of payments from customers

4.8. Documentation flow review

5. TMS - transport management systems

6. WMS - warehouse management systems

7. Digital logistics platforms in logistics management

8. Digital technology development in logistics

Recommended reading lists
Basic literature: SAP UA instructions Matusiewicz M., Logistics of the future - Physical Internet and its practicality, Transportation Journal, 2020, vol. 59, no 2 H. Nozari, M. Fallah, A. Szmelter-Jarosz, "A conceptual framework of green smart IoT-based supply chain management", International Journal of Research in Industrial Engineering, t. 10, nr 1, ss. 22-34, 2021. Supplementary literature: H. Nozari, M. Fallah, A. Szmelter-Jarosz, M. Krzemiński, "Analysis of security criteria for IoT-based supply chain: a case study of FMCG industries", Central European Management Journal, t. 29, nr 4, ss. 1-23, 2021. H. Gleissner, J.C. Femerling (2013) IT in Logistics. In: Logistics. Springer Texts in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-319-01769-3_9 D. Daniluk, B. Holtkamp (2015) Logistics Mall—A Cloud Platform for Logistics. In: ten Hompel M., Rehof J., Wolf O. (eds) Cloud Computing for Logistics. Lecture Notes in Logistics. Springer, Cham. https://doi.org/10.1007/978-3-319-13404-8_2

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* SS1- undergraduate studies * SS2 - graduate studies * SDang - doctoral studies
** MSG - International Economic Relations