University of Gdańsk

Subject card

Subject name and code	SAP S/4HANA in Logistics, PG_00200447		
Field of study	Logistics and Mobility		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	English
Semester of study	3	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Logistics -> Faculty of Economics -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Agnieszka Szmelter-Jarosz	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	15.0	0.0	45

E-learning hours included: 0.0

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	45	0.0	5.0	50

Subject objectives

- To introduce students to logistics support system.
- To show the functioning of ERP and BI applications in logistics activites.
- To prepare students to work in companies with a global range.
- To acquaint students with the structure of modules responsible for the logistics support MM, SD, PP, CS, WM in SAP S4/HANA
- To teach students how to plan logistics activities in an international organization, including planning material resources, planning, implementation and production control, implementation of sales and distribution processes, customer service.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[LMMU2_W08] has a knowledge of main and logistics processes occurring in enterprises and economic organisations and with related areas, as well as of processes of change in public institutions; knows methods of research on the regularities governing these changes, taking into account the influence of external stakeholders on them	• Student works independently, expanding own skills and knowledge • Student is open to new methods for solving decision problems in the area of logistics management	[SW4] test/exam - oral or written
	[LMMU2_K04] is ready to think and act in an entrepreneurial manner; adapts to new situations and conditions; undertakes challenges of creative thinking; acquires resilience to failures; can assess risks and threats and find ways of counteracting their effects	• Student understands the importance of transactional systems (especially ERP) in logistics management. • Student understands the rules of logistics management and logistics support system both in small and big, global company. • Student understands the workflow and stages in logistics processes.	[SK8] observation of student's independent or team work
	[LMMU2_U06] can practically apply various forms and range of acquired knowledge in logistics and mobility, supplementing it with an independent critical analysis of its efficiency and usefulness	• Student uses SAP S4/HANA system in the logistics management area. • Student is able to plan, carry out and control logistics activities. • Student is able to handle the information flow related to logistics management, including preparing a project in teams of 2-3 people in the field of software operation, which is discussed and approved during consultations with the lecturer and then presented during classes	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work

Subject contents	1. Introduction 1.1. GBI database (company profile, business processes) 1.2. a map of processes in ARIS Publisher for GBI, in particular a map of logistic processes (Procure-to-Pay Processes, Idea-to-Market, Plan-to-Inventory, Forecast-to-Delivery, Order-to-Cash) 1.3. Theoretical background main and logistics processes, logistics management, logistics support system, logistics channels, logistics strategies in global supply chains 2. Materials Management (MM) module: 2.1. Procure-to-Pay process 2.2. Module structure and functionalities 2.3. Case study in Materials Management: • Introduction to MM study • Creating new records in master data • Creating purchase requisitions and requests for quotation • Maintaining quotations from vendors • Creating purchase orders and goods receipts • Verifying physical receipts • Posting payment to vendors 3. Production Planning (PP) module in SAP S4/HANA: 3.1. Idea-to-Market and Plan-to-Inventory process 3.2. Module structure and functionalities 3.3. Production Planning and Execution case study: • Introduction to PP study • Creating and changing records in Material Master • Changing routing • Creating SOP (Sales and Operation Plan) • Running Master Production Schedule • Creating production orders • Confirming production completion • Receiving goods form production orders • Review of costs assigned to production orders 4. Sales and Distribution (SD) and Customer Service (CS) modules in SAP S4/HANA: 4.1. Order-to-Cash, Quote-to-Cash, Issue-to-Resolution process 4.2. Module structure and functionalities 4.3. Sales and Distribution case study: • Introduction to SD study • Creating and changing records in master data • Creating customer inquiry • Creating customer quotation • Creating sales order • Picking materials on delivery note • Posting goods issue • Creating sales invoice • Posting receipt of customer payment • Financial transactions in SAP ERP

5. Warehouse Management (WM) modules in SAP S4/HANA:

5.1. Inventory processes (picking and packing, sorting, Goods Issue, Goods Receipt, Tranfer Orders, Transport Orders, top-down activities, warehouse structure)

5.2. Module structure and functionalities

5.3. Warehouse Management case study:

5.3.1. Supply:

- Creating purchase order
- Displaying material inventories
- Receiving goods
- Running reports
- Creating and confirming transfer orders

5.3.2. Sales:

- Creating sales order
- Creating outbound delivery
- Creating and confirming transfer order
- Shipping materials
- Displaying material inventories

6. Assessment test.

During the consultation, individual questions from students will be discussed, doubts will be clarified, and additional explanations regarding the content of the subject will be provided.

To receive a passing grade, you must score at least 51% of the total points in the practical section and 51% in the project section. The final grade is based on the total points from both the practical and project sections.

Prerequisites and co-requisites	**A.** Formal requirements Passing the following subjects: IT Tools in Logistics and Mobility Tools for Business Planning **B.** Prerequisites Knowledge: Basic theories and principles of Business Process Modelling and Management, enterprise management and information systems. Basic knowledge about logistics. Skills: Computer skills (Windows, MS Office), Good knowledge of English language.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
project	51.0%	40.0%
ongoing assessment (in-class activities)	51.0%	25.0%
test	51.0%	35.0%

Recommended reading

Basic literature	A.1. used during classes • · SAP University Alliances materials (lecture and classes scenarios) • · additional materials uploaded by teacher A.2. studied by the student • · L. K. Lau, Managing Business with SAP: Planning, Implementation and Evaluation, Idea Group Inc., 2005. • · Szmelter A., Communication in global supply chains in automotive industry, Information Systems in Management 2015, Vol. 4, no 3, p. 205-218
Supplementary literature	• · E. Monk, B. Wagner, Enterprise Resource Planning, Cengage Learning EMEA, 2008. • · G. C. Williams, Implementing SAP ERP Sales&Distribution, McGraw Hill Professional, 2008. • · J. Kappauf, B. Lauterbach, M. Koch, Logistics Core Operations with SAP, Springer, 2011
eResources addresses	

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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