

**Subject card**

<b>Subject name and code</b>	IT Tools in Logistics and Mobility, PG_00200438						
<b>Field of study</b>	Logistics and Mobility						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Master's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			English		
<b>Semester of study</b>	2	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			exam		
<b>Conducting unit</b>							
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Dorota Książkiewicz				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM		
	<b>Number of study hours</b>	15	0.0	35.0	50		
<b>Subject objectives</b>	The aim of the course is to acquaint students with the classification of IT tools used by enterprises in the field of transportation and logistics. To familiarize students with information flow within enterprises and supply chains. To prepare students for using advanced solutions in logistics information systems.						
<b>Learning outcomes</b>	<b>Course outcome</b>	<b>Subject outcome</b>		<b>Method of verification</b>			
	[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	The student is equipped with knowledge on digital tools and their application in transport and logistics processes		[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion			
	[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	The student is able to propose solutions to problems related to specific situations in logistics		[SK1] oral statement/conversation/discussion [SK4] test/exam - oral or written			

Subject contents	<p>1. Logistics Based on Data - data management principles</p> <p>2. Types and Functions of Information Systems Used by Logistics Companies (ERP, SCM, TMS, WMS)</p> <p>3. Transportation Management Systems (TMS)- managing transportation fleets, tracking vehicles, and optimizing routes</p> <p>4. Real-Time Tracking and Tracing Technologies: GPS, RFID, and other technologies for real-time monitoring of shipments and assets.</p> <p>5. Information Tools Supporting Inventory Management (WMS)</p> <p>6. Automatic Warehouse Operations</p> <p>7.. Cloud Computing in Logistics: Applications, advantages, and security considerations</p> <p>8. Internet of Things (IoT) in Transportation and Logistics</p> <p>9. Artificial Intelligence (AI) and Digital Logistics Platforms</p> <p>10. Robotic and Automated Tools</p> <p>11. Mobile Applications in Logistics: Role of mobile apps for field operations, driver management, and customer interaction in logistics.</p> <p>12. Digital Data Safety and Security in Logistic</p> <p>Any doubts regarding the issues discussed will be dispelled during the consultation.</p>											
Prerequisites and co-requisites	Basic knowledge of the course of transport and logistics operations. Knowledge of supply chain management principles in the global economy.											
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="453 1263 794 1290">Subject passing criteria</th> <th data-bbox="799 1263 1141 1290">Passing threshold</th> <th data-bbox="1145 1263 1490 1290">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 1296 794 1323">in-class discussion</td> <td data-bbox="799 1296 1141 1323">0.0%</td> <td data-bbox="1145 1296 1490 1323">20.0%</td> </tr> <tr> <td data-bbox="453 1330 794 1357">test</td> <td data-bbox="799 1330 1141 1357">51.0%</td> <td data-bbox="1145 1330 1490 1357">80.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	in-class discussion	0.0%	20.0%	test	51.0%	80.0%
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test	51.0%	80.0%										
Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>ICT Solutions and Digitalization in Ports and Shipping, edited by M. Fiorini and N. Gupta, IET, 2021</p> <p>Marr Bernard: Data Strategy: How to Profit from a World of Big Data, Analytics and Artificial Intelligence, Kogan Page Ltd. 2021.</p> <p>Marr Bernard, Tech Trends in Practice: The 25 Technologies that are Driving the 4th Industrial Revolution, John Wiley &amp; Sons 2020.</p> <p>Batuhan Kocaoglu, Logistics Information Systems: Digital Transformation and Supply Chain Applications in the 4.0 Era (Springer Texts in Business and Economics) 2024</p> <p>Maar Bernard, The Intelligence Revolution:- Transforming Your Business With AI, Kogan Page 2020</p>										
Example issues/ example questions/ tasks being completed	<p>What are the main types of IT systems used in logistics processes?</p> <p>What functions do various types of IT systems and tools have in supply chains?</p>											
Work placement	Not applicable											

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