

**Subject card**

<b>Subject name and code</b>	Investment and Risk Management Process, PG_00200429						
<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>	1	<b>ECTS credits</b>			3.0		
<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 hab. Przemysław Borkowski				
	<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	15.0	0.0	30.0	0.0	60
	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>	60		0.0		15.0	75
<b>Subject objectives</b>	to make student familiar with investment assessment techniques in real sector to understand risk and how it applies to investment projects in real sector to manage and assess risk to be able to manage investment during its lifespan to be able to compare and select preferable investments to be able to assess transport and logistics investments						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[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	knows how to react to changing socio-economical conditions. knows how to assess risk and propose risk management solutions.	[SK3] text preparation/written work [SK5] implementation of a problem task
	[LMMU2_K01] recognises the importance of knowledge in the field of logistics and mobility in the process of identifying and solving work-related problems and of consulting experts when having difficulties in solving them independently	Can analyse problems taking into account multiple factors. Can make decisions referring to methods and selected algorithm. Is able to look for solutions in the appropriate literature	[SK2] presentation/project/paper/report [SK5] implementation of a problem task
	[LMMU2_K03] inspires and organises preparation of projects in the field of logistics and mobility, following the idea of sustainable development, reconciling legal, economic, ecological, political and social requirements	Learns how to reconcile contradictory investment requirements. Understands impacts on society and can plan on mitigating negative environmental and social aspects of investments	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[LMMU2_K02] is aware of the level of his/her knowledge in the field of logistics and mobility; understands the need to extend and update this knowledge throughout his/her life	Understands limitations of methods used. Can search for indicators and data.	[SK2] presentation/project/paper/report [SK5] implementation of a problem task [SK6] demonstration of practical skills
	[LMMU2_W03] has a knowledge of relations between economic entities and organisations functioning in the national, international and intercultural spheres; understands importance of logistics and mobility for their operation	Understands the investment concept and relation between entities in the investment market.	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[LMMU2_U04] can forecast and model complex economic and social processes, as well as logistics and mobility processes and systems using quantitative and qualitative methods and tools developed by economic sciences (including statistics and econometrics)	Can apply CBA and VaR techniques. Can calculate ENPV of complex investment projects. Can calculate risk and perform sensitivity analysis.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU6] demonstration of practical skills
	[LMMU2_U07] can independently propose solutions to complex logistics and mobility problems, select methods of analysis and conduct conclusive procedures in this respect	Is able to perform comparative analysis of alternative investments	[SU2] presentation/project/paper/report [SU5] implementation of a problem task
	[LMMU2_U02] can use acquired knowledge to describe and analyse the causes and course of logistics and mobility processes and systems, and can formulate his/her own opinions and critically select data and analysis methods based on the achievements of economic and social sciences	Is able to formulate and evaluate assessment criteria for investment acceptance. Is able to select appropriate evaluation method to the investment	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU5] implementation of a problem task [SU6] demonstration of practical skills
	[LMMU2_W06] has an in-depth knowledge of statistical and econometric methods and tools for description and macro- and microeconomic modelling of logistics and mobility processes and systems	Is able to apply selected qualitative and quantitative methods and to build and investment appraisal models. Knows how to calculate ENPV, BCR, EIRR, VaR	[SW2] presentation/project/paper/report [SW3] text preparation/written work [SW5] implementation of a problem task
	[LMMU2_W04] knows different types of economic and social ties and regularities governing them; has knowledge of ties between enterprises which require logistics support or provide logistics services	Knows methods for assessment of economic and financial viability in view of the relations between actors in the investment market. Knows how to appraise value and risks in investment projects.	[SW2] presentation/project/paper/report [SW5] implementation of a problem task

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Subject contents	<p>1. Basics of investment theory: investment in real vs financial sector, investment theories: financial investment equilibrium in Markowitz and CAPM vs real sector investment market equilibrium, investors and investment lifecycles, infrastructure vs company own investments (2h) 2. Financing real sector investments: financial mechanisms for investing in real sector, external and internal capital, cost of capital, innovative financial instruments, green bonds and green financing (4h) 3. Investment decision making process: application of the theory of decision making under condition of risk into real sector investments, investment selection, preliminary investment assessment, alternative investments (2h) 4. Investment financial and economic assessment: financial indicators, rate of return and discounted cash flows, fundamental analysis of the investment project (4h) 5. Cost Benefit Analysis: calculation of costs and benefits, ENPV and BCR for selected T&amp;L investments (5h) 6. Risk identification and assessment in investment projects: risk typology, qualitative and quantitative risk assessment, VaR and sensitivity for investment project assessment (5h); 7. Risk management: risk strategies, internal and external risk instruments, use of real options and derivatives, risk avoidance and risk taking (4h) 8. Case studies in investment assessment in T&amp;L sector (4h)</p>										
Prerequisites and co-requisites											
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Example issues/ example questions/ tasks being completed											
Work placement	Not applicable										

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