

Course title	Mobility Challenges in Urban Logistics						ECTS code	14.03.5365			
							ECTS credits	5			
							max. students	20			
Name of unit administrating study	KRT	Field of study	Economics/MSG**	Field of specialisation	NONE;						
Teaching staff	Aleksander Jagiełło, Ph.D. ; Katarzyna Hebel, Associate Professor ; Krzysztof Grzelec, Associate Professor ; Dariusz Tłoczyński, Associate Professor ; Joanna Czerepko, Ph.D.										
Number of hours											
Lectures	30	Classes	0	Tutorials	0	Laboratory	0	Seminars	0	Language classes	0
Forma aktywności							Year&Type of studies*	3 SS1, 2 SS2,			
Hours with the participation of the academic teacher (including office hours, exams, others):						38	Semester:	5, 3,			
Hours without the participation of the academic teacher (student's self-study, homeworks):						38	Type of course:	optional			
Total number of hours:						76	Language of instruction:	English			
Teaching form	in-class learning										
Teaching methods	Lectures including multimodal presentations, Discussion, questioning, Collaborating, group activities, Case studies, E-learning, Didactic games,										
Prerequisites (required courses and introductory requirements)											
Required courses	Transport Economics, Economics (Basic)										
Introductory requirements	Basic knowledge in the field of transport										
Assessment method, forms and criteria											
Assessment method	Course completion (graded)										
Assessment criteria	<p>The presentations on mobility challenges in urban logistics subject will be the basis for the assessment of the student's performance (the topics will be individually discussed during lecture).</p> <p>100-90% of the maximum number of points - 5        89-80% of the maximum number of points - 4+        79-70% of the maximum number of points - 4        69-60% of the maximum number of points - 3+        59-50% of the maximum number of points - 3        49-0% of the maximum number of points - 2</p>										
Course objectives											
Acquisition by the student of knowledge about mobility in city logistics											
Learning outcomes											
Knowledge	E1_W03	has an in-depth knowledge of relations between transport companies									
	E1_W07	has an in-depth knowledge of economic and financial principles governing the functioning and management of transport companies									
	MSG1_W02	has an advanced knowledge and understanding of the terminology of transport, mobility and logistics									
	MSG1_W06	has advanced knowledge of the functioning of transport and logistics companies									
	E2_W03	has an in-depth knowledge of relations between transport companies									
	E2_W07	has an in-depth knowledge of economic and financial principles governing the functioning and management of transport companies									
	MSG2_W02	has an advanced knowledge and understanding of the terminology of transport, mobility and logistics									
	MSG2_W09	has an in-depth knowledge of selected areas of the functioning of a modern transport and logistic enterprises									

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
E1_W03							X	X	X		
E1_W07							X	X	X		
MSG1_W02							X	X	X		
MSG1_W06							X	X	X		
E2_W03							X	X	X		
E2_W07							X	X	X		
MSG2_W02							X	X	X		
MSG2_W09							X	X	X		
Skills	E1_U06	can practically apply various forms and range of acquired knowledge in economics, finance and management of transport companies									
	E1_U08	can independently analyse economics of transport and social phenomena and processes, and can perform a theoretically deepened assessment of such phenomena									
	MSG1_U06	can identify selected risks related to operations of transport and logistics companies and assess their consequences correctly									
	MSG1_U13	can prepare presentations and oral speeches on transport and mobility issues									
	E2_U06	can practically apply various forms and range of acquired knowledge in economics, finance and management of transport companies									
	E2_U08	can independently analyse economics of transport and social phenomena and processes, and can perform a theoretically deepened assessment of such phenomena									
	MSG2_U06	can identify selected risks related to operations of transport and logistics companies and assess their consequences correctly									
	MSG2_U14	can prepare presentations and oral speeches on transport and mobility issues									
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
E1_U06							X	X	X		
E1_U08							X	X	X		
MSG1_U06							X	X	X		
MSG1_U13							X	X	X		
E2_U06							X	X	X		
E2_U08							X	X	X		
MSG2_U06							X	X	X		
MSG2_U14							X	X	X		
Attitudes	E1_K03	inspires and organises preparation of economic and social projects, following the idea of sustainable development, reconciling legal, economic, ecological, political and social requirements									
	E1_K04	is ready to think and act in an entrepreneurial manner; adapts to new situations and conditions; undertakes challenges of creative thinking									
	MSG1_K05	correctly identifies, diagnoses and solves dilemmas and various options of solutions related to the profession									

	E2_K03	inspires and organises preparation of economic and social projects, following the idea of sustainable development, reconciling legal, economic, ecological, political and social requirements
	E2_K04	is ready to think and act in an entrepreneurial manner; adapts to new situations and conditions; undertakes challenges of creative thinking
	MSG2_K06	correctly identifies, diagnoses and solves dilemmas and various options of solutions related to the profession

**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
E1_K03							X	X	X		
E1_K04							X	X	X		
MSG1_K05							X	X	X		
E2_K03							X	X	X		
E2_K04							X	X	X		
MSG2_K06							X	X	X		

**Course contents**
**1.City as a complex system**

- 1.1.Process of urban development
- 1.2.Challenges of urban development
- 1.3.The concept of smart city

**2.Urban logistics as a solution toward challenges**

- 2.1.Urban logistics system
- 2.2.Urban goods mobility
- 2.3.Urban passenger mobility

**3.Planning Sustainable Urban Logistics**

- 3.1.The concept of sustainable urban logistics
- 3.2.The city and the freight
- 3.3.Urban logistics infrastructure

**4.Planning Sustainable Urban Mobility**

- 4.1.Sustainable urban mobility policy
- 4.2.Sustainable Urban Mobility Plans (SUMP) as a local policy tool
- 4.3.Evaluation of the selected SUMPs

**5.Non-motorised transport as an element of sustainable urban mobility**

- 5.1.The concept of walkability
- 5.2.Cycling
- 5.3.Planning integrated infrastructure for active mobility

**6.Transport Demand Management as an element of sustainable urban mobility**

- 6.1.The concept of TDM
- 6.2.Selected issues of the TDM
- 6.3.Selected case studies of the TDM

**7.Public transport as an element of sustainable mobility**

- 7.1.Public transport as a subsystem of the modern city
- 7.2.Challenges facing public transport
- 7.3.Modern concepts of public transport

**8.Organisation and management of public transport in cities**

- 8.1.Models of public transport organization
- 8.2.Managerial aspects of public transport in cities
- 8.3.Evaluation of selected case studies of management in public transport

**9.Supply of the public transport**

- 9.1.Infrastructure of the public transport
- 9.2.Rolling stock
- 9.3.Electrification of the public transport

**10.Demand for the public transport**

- 10.1.Features of demand in public transport
- 10.2.Research of the demand in public transport
- 10.3.Transport behaviour and preferences

**11.Costs and pricing policy in public transport**

- 11.1. Costs of public transport
- 11.2. Pricing policy in public transport
- 11.3. Free public transport - really for free?

**12. Airport - gateway to the city**

- 12.1. Airport catchment area
- 12.2. Direct and indirect connections
- 12.3. Time slot allocation

**13. Airports links as an element of urban & regional transport system**

- 13.1. Rail airports link
- 13.2. Bus airports link
- 13.3. Car parking operators at airports

**14. Port cities**

- 14.1. Relations between port and city
- 14.2. Evolution of ports
- 14.3. Transformation of post-harbor space

## Recommended reading lists

## Basic:

J. Ricart Costa, A. Duch T-Figueras, P. Berrone, *Cities and Mobility & Transportation: Towards the Next Generation of Urban Mobility*, Createspace Independent Publishing Platform, 2016

K. Grzelec, K. Hebel, O. Wyszomirski, *Zarządzanie zbiorowym transportem miejskim w warunkach polityki zrównoważonej mobilności*, Wyd. UG, 2020

D. Tłoczyński, A. Hozzman, P. Zagrajek, *Transport lotniczy w warunkach globalnej mobilności*, Wyd. UG, 2021

## Additional:

M. Finck, M. Lamping, V. Moscon, H. Richter, *Smart Urban Mobility: Law, Regulation, and Policy*, Springer, 2020

M. Browne, J. Holgiun-Veras, J. Woxenius, S. Behrends, G. Giuliano, *Urban Logistics: Management, Policy and Innovation in a Rapidly Changing Environment*, 2018

A. Graham, N. Adler, H.M. Niemeier, O. Betancor and other, *Air transport and development policies*, Routledge, 2021

## Contact

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\* SS1 - undergraduate studies \* SS2 - graduate studies \* SDang - doctoral studies

\*\* MSG - International Economic Relations