Course title	Sustainable Urban Mobility Planning	ECTS code	14.3.EE.SZ.3628
		ECTS credits	2

Name of unit administrating study	KRT	Field of study	Economics	Field of specialisation	L&M;
Teaching staff	Marcin Wołek, Associate Professor				

Number of hours											
Lectures	15	Classes	15	Tutorials	0	Laboratory	0	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	Lectures including multimodal presentations, Activating methods in training classes, Discussion, questioning, Collaborating, group activities, Case studies,

Prerequisites (required courses and introductory requirements)

Required courses	Macroeconomics, Market Research and Analysis for Logistics and Mobility.
Introductory requirements	General knowledge of economics. Basic analytical competencies.

Assessment method, forms and criteria

Assessment method	Exam
Assessment criteria	Normy punktowe dla egzaminu: 91 - 100 pkt - ocena bdb 81-90 - ocena db plus 71-80 - ocena db 61-70 - ocena dst plus 51-60 - ocena dst 50 i mniej - ndst.

Course objectives

To introduce the student to the concept of sustainable urban mobility.

To indicate relations between spatial planning and urban transport.

To present the process of planning sustainable urban mobility and selected analytical methods.

To introduce the student to the method of monitoring urban mobility plan.

Learning outcomes

Knowledge	E2_W03	has an in-depth knowledge of relations between economic phenomena, entities and organisations as well as public institutions functioning in the national, international and intercultural spheres
	E2_W07	has an in-depth knowledge of economic and financial principles governing the functioning and management of economic entities and organisations, as well as of systems of legal, organisational, professional, moral and ethical norms and rules organising public structures and institutions, both in the national and international spheres

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_W03	X							X	X		
E2_W07	X				X			X	X		

Skills	E2_U06	can practically apply various forms and range of acquired knowledge in economics, finance and management, supplementing it with an independent critical analysis of its efficiency and usefulness
	E2_U08	can independently analyse economic and social phenomena and processes, and can perform a theoretically deepened assessment of such phenomena, using appropriately selected research method

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		
E2_U08						X		X	X	X	

Attitudes	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; acquires resilience to failures; can assess risks and threats and find ways of counteracting their effects

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_K03								X		X	
E2_K04								X	X	X	

Course contents

Lecture (15 hours)

1.Land use planning: a prerequisite for sustainable urban mobility planning

1.1.Climate change - a need for more resilient urban systems

1.2.Relations between land use and mobility: Avoid-Shift-Improve

1.3.Sustainable land use planning

2.What is Sustainable Urban Mobility Planning

2.1.From transport planning to sustainable mobility planning

2.2.The EU regulatory framework

2.3.Sustainable Urban Mobility Plans (SUMP) as a local policy tool

3.The process of the sustainable urban mobility planning

3.1.Stakeholder identification and diagnosis

3.2.Developing scenarios

3.3.Vision, goals, action plan and monitoring

4.Public transport - a backbone of sustainable urban mobility

4.1.Public transport and urban development

4.2.Means of public transport and their features

4.3.New trends in public transport development

5.Cycling

5.1.The nature of cycling

5.2.Infrastructure

5.3.Non-infrastructure measures supporting cycling

6.Walking

6.1.The nature of walking

6.2.Walking and the built environment

6.3.Methods of measuring walking

7.Car in the city

7.1.Consequences of motorization growth

7.2.Optimisation of traffic

7.3.Reducing the environmental impact of car

8.Urban logistics and freight

8.1.What is urban logistics

8.2.New solutions and trends in urban logistics

8.3.Freight and the city: the case of harbour cities

Classes [15 hours]: 1.From district to metropolitan area: An architecture of the sustainable urban mobility planning 2.A process of planning sustainable urban mobility 3.Modal split: research and interpretation4.Scenario development and evaluation5.Life-Cycle Assessment in sustainable urban mobility planning6.Environmental impact assessment in sustainable urban mobility planning7.Indicators for sustainable urban mobility development

Recommended reading lists

Obligatory literature:

1. Guidelines for developing and implementing a Sustainable Urban Mobility Plan (2nd edition), available online: https://www.eltis.org/sites/default/files/sump_guidelines_2019_interactive_document_1.pdf

2. Jan Gehl: Cities for People. Island Press, 2010

3. M. Wolek et al.: Ensuring sustainable development of urban public transport: a case study of the trolleybus system in Gdynia and Sopot (Poland). "Journal of Cleaner Production" 2021 vol. 279

3. Selected articles from journals, including "PLOS One", "Transportation Research", "Journal of Cleaner Production", "Sustainability", "Energies".

Facultative:

1. Planning and Design for Sustainable Urban Mobility: Global Report on Human Settlements 2013. Available online: https://unhabitat.org/sites/default/files/download-manager-files/Planning%20and%20Design%20for%20Sustainable%

20Urban%20Mobility.pdf

2. M. Wołek, A. Jagiełło, M. Wolanski:

Multi-criteria analysis in the decision-making process on the electrification of public transport in cities in Poland: a case study analysis. "Energies" 2021 vol. 14 nr 19

Contact	marcin.wolek@ug.edu.pl,

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