

Subject card

Subject name and code	Sustainable cities, PG_00177606						
Field of study	Economics, International Economic Relations						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		English		
Semester of study	6		ECTS credits		5.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Maria Matusiewicz				
	Teachers		dr Maria Matusiewicz				
			dr Agnieszka Szmelter-Jarosz				
			dr Jarosław Kempa				
			prof. dr hab. Jacek Zaucha				
			dr hab. Marcin Wolek				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	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	30		0.0		0.0	30
Subject objectives	1. Understanding contemporary challenges of sustainable urban development, in particular in the context of the transformation of mobility, urban logistics, spatial management and social justice. 2. Developing analytical and strategic competences enabling the design, assessment and implementation of urban sustainable development policies taking into account various stakeholders and dimensions (economic, social, environmental, technological). 3. Developing skills in assessing the impact of specific planning actions and tools (e.g. SUMP, Physical Internet, digital twin, spatial planning, principles of circular economy) on the functioning of the city. 4. Critical reflection on practical aspects of implementing urban policies, including tensions and compromises between the goals of economic development, environmental protection and social justice. 5. Integration of interdisciplinary knowledge, combining approaches from the fields of transport, logistics, spatial policy, urban economics, maritime planning and territorial development management.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[EKONL3_W08] has knowledge of the processes of changing elements, enterprises and whole structures of economic organisations, as well as the processes of changing social institutions, knows what their causes, course, scale, consequences are and what the influence of external stakeholders is on them	Knowledge: Knows the mechanisms of institutional and organizational transformation in cities in the context of sustainable development, including changes in the functioning of enterprises, public institutions and spatial management structures. Skills: Able to analyze the processes of change in urban economic and social systems (e.g. restructuring of public transport, digitalization of urban services, energy transformation) and assess the impact of various stakeholder groups on these processes. Social competences: Understands the complexity of institutional and economic change processes in cities and is able to perceive different points of view, including conflicts of interest and the need to seek compromises between stakeholders.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW5] implementation of a problem task
	[EKONL3_K03] participates in the preparation of economic and social projects, being able to reconcile legal, economic, ecological, political and social requirements	Knowledge: Knows the relationships between economic, social, legal and environmental aspects in the process of planning sustainable urban development. Skills: Is able to design elements of urban policy or infrastructure solutions, taking into account the conflicting requirements of different stakeholders. Social competences: Demonstrates readiness to cooperate in an interdisciplinary team and respect differences in approach to sustainable development goals.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
	[EKONL3_U04] can predict and forecast the course of economic and social processes and phenomena	Knowledge: Has in-depth knowledge of the factors influencing the development of cities in the context of sustainable development, including mobility trends, climate change, spatial policy and socio-economic dynamics. Skills: Can analyse and forecast the impact of urban policies (e.g. SUMP, circular economy) on the functioning of the city, identify possible development scenarios and predict the effects of implemented strategies in the social, economic and environmental dimensions. Social competences: Is aware of the complexity of urban processes and is able to take into account the diverse perspectives of stakeholders when assessing and forecasting the effects of actions for sustainable development.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work

	Course outcome	Subject outcome	Method of verification
	[EKONL3_U08] has the ability to observe, understand and analyse economic and social phenomena and processes using appropriate scientific methods	Knowledge: Knows the research methods used in the analysis of urbanization processes, mobility and sustainable development of cities. Skills: Is able to analyze urban economic and social phenomena (e.g. suburbanization, gentrification, transport transformations) using appropriate research tools. Social competences: Understands the importance of reliable data analysis in formulating proposals for solutions to urban challenges and is able to justify his/her position in the public debate.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONL3_U09] is able to prepare written work, in Polish and in a foreign language, on specific economic and social issues, using specialist terminology, theoretical and methodological approaches, principles of collecting data from various sources, their description and interpretation, making inferences based on scientific literature and factual data, and making international comparisons	Knowledge: Knows specialist terminology in the field of sustainable urban development, urban policies, mobility and logistics, in Polish and English, and is able to relate it to theories and models of territorial development. Skills: Can prepare a written study (e.g. essay, report, case study) on a selected issue related to the development of sustainable cities, using adequate sources, data, research methodology and making international comparisons. Social competences: Can clearly and reliably formulate positions and conclusions in writing, demonstrating openness to various analytical approaches and responsibility for the quality and substantive correctness of the presented content.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONL3_U15] is able to independently complement and improve the acquired knowledge and economic skills, is open to new ideas and techniques, tends to learn by any method and is willing to interact with other participants in the learning process	Knowledge: Knows the sources of current knowledge on sustainable urban development, is able to identify new approaches and tools (e.g. digital twin, Physical Internet, SUMP) and understands the need to further explore them in changing urban and technological conditions. Skills: Is able to independently search, analyze and implement new concepts and good practices in the field of urban sustainable development policies, developing analytical, planning and strategic skills. Social competences: Is open to cooperation, learning from other participants in the educational process and experimenting with new methods of urban planning; demonstrates a proactive attitude in searching for innovative solutions.	[SU1] oral statement/conversation/discussion [SU4] test/exam - oral or written [SU8] observation of student's independent or team work

	Course outcome	Subject outcome	Method of verification
	[EKONL3_U03] is able to analyse the causes and course of specific economic and social processes and phenomena, and accurately analyse these phenomena using adequate methods and tools economic and social	Knowledge: Knows the main conditions and mechanisms governing the phenomena of urbanization, spatial inequalities, urban mobility and environmental transformation in cities. Skills: Is able to identify the causes and effects of selected urban phenomena (e.g. suburbanization, transport exclusion, gentrification) and analyze them using economic and social tools (e.g. cost-benefit analysis, urban models, participatory methods). Social competences: Understands the need for a multi-aspect approach to the analysis of urban phenomena and is able to take into account the perspective of various social groups and stakeholders when interpreting processes taking place in cities.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONL3_W02] has advanced knowledge of the different types of existing business entities and organisations and public institutions	Knowledge: Knows the role and functions of different types of urban stakeholders – including local governments, transport operators, logistics companies, social organizations, spatial planners and international institutions – in implementing sustainable urban development policies. Skills: Identifies and describes the relationships between entities involved in shaping urban development policies, analyzing their competences, interests and potential conflicts and areas of cooperation. Social competences: Understands the need for cooperation between different organizations and institutions in the process of urban transformation; demonstrates readiness for intersectoral dialogue and sensitivity to the social and institutional conditions of urban activities.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[EKONL3_U01] can correctly interpret economic and social phenomena and apply knowledge of economics, finance and management sciences to explain economic phenomena	Knowledge: Knows the economic, social and managerial conditions of the functioning of cities and is able to explain the mechanisms governing phenomena such as mobility transformation, urbanization, spatial inequalities or infrastructure development. Skills: Is able to interpret complex urban phenomena (e.g. transport congestion, rising housing costs, spatial fragmentation) using knowledge of economics, public finance and strategic management in territorial policies. Social competences: Demonstrates the ability to think critically and responsibly interpret urban phenomena, taking into account their consequences for various social groups and the long-term development of the city.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work

	Course outcome	Subject outcome	Method of verification
	[EKONL3_U02] is able to use the knowledge of theory and data to analyse concrete economic and social processes and phenomena and to analyse these phenomena using methods developed in economics, finance and management sciences	Knowledge: Understands the theoretical foundations of analyses of urban processes in the context of sustainable development and knows the methods used in urban economics, public finance and spatial management. Skills: Can acquire, integrate and analyse data on urban phenomena (e.g. mobility, urban logistics, spatial planning) using analytical tools and quantitative and qualitative methods. Social competences: Demonstrates responsibility for the accuracy of analyses and the ability to justify decisions made based on data and economic models; can communicate the results of analyses in a way that is understandable to various stakeholder groups.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[MSGSL3_W01] has an advanced knowledge of economic sciences, in particular of economics and its place in the system of sciences, including within related disciplines	The student has in-depth economic knowledge allowing him or her to understand the complexity of urban systems and their connections with the economy.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W03] has an advanced and structured knowledge of the world economy and international economic relations; understands the process of their evolution, including its causes and consequences	The student understands the evolution of the global economy and its impact on shaping sustainable urban development strategies.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W06] knows and understands the relations between economic entities and public institutions functioning in the national, international and intercultural realms	The student knows the relationships between economic entities and public institutions in managing urban development at various levels.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W07] knows and understands types of economic ties and regularities governing them, including the principles of functioning of the market and the market mechanism, both in the national and international aspect	The student understands the principles of market functioning and the economic mechanisms influencing urban development on a local and global scale.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W08] knows and understands the fundamental dilemmas of contemporary civilisation, including the strategy of sustainable development and corporate social responsibility	The student identifies contemporary civilization challenges related to urbanization and understands the role of cities in implementing sustainable development strategies.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W09] has knowledge about a human being as an individual making economic decisions, acting within social structures and organisational units (in particular enterprises) or conducting individual economic activity	The student understands the behaviours and decisions of city residents in the context of their role as participants in economic and social life.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[MSGSL3_W11] has an advanced knowledge of (legal, organisational, ethical) rules and norms organising economic structures and institutions (in particular those on the international market)	The student knows the legal, organizational and ethical principles regulating the functioning of cities and institutions responsible for their development.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report

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	[MSGSL3_W13] gospodarczych w otoczeniu krajowym i międzynarodowym, ze szczególnym uwzględnieniem Unii Europejskiej has a well-structured knowledge of the functioning of business entities in the national and international environment, with particular emphasis on the European Union	The student has knowledge about the functioning of cities in national and European structures, including in the context of cohesion policy and EU urban agendas.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[MSGSL3_U01] can correctly interpret and explain economic and social phenomena, analyse their causes, course and connections between these phenomena using the acquired knowledge of economics, finance and international economic relations	The student is able to analyse urban phenomena and processes, indicating their economic, social and environmental conditions.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
	[MSGSL3_U02] can assess economic and social phenomena occurring in an open economy, interpret necessary statistical data and economic indicators, as well as forecast economic phenomena and processes, using standard methods and tools applied in economic sciences	The student interprets statistical data on the functioning of cities and forecasts the effects of urban policies using economic tools.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
	[MSGSL3_U06] can identify selected risks related to international operations of enterprises and assess their consequences correctly	The student identifies economic, social and environmental risks related to urban development and assesses their possible effects.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
	[MSGSL3_U14] can interact and work in a team (including an international one), taking various roles within it	The student works effectively in a project team dealing with solving problems related to the functioning of cities.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
	[MSGSL3_K03] participates in the preparation of economic and social projects; can reconcile legal, economic, ecological, political and social requirements	The student participates in urban projects, taking into account economic, social, ecological and institutional requirements.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
	[MSGSL3_K05] correctly identifies, diagnoses and solves dilemmas and various options of solutions related to the profession	The student recognizes and solves dilemmas related to city planning and management in accordance with the principles of social responsibility.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
	[MSGSL3_K06] is ready to be guided in his/her professional life by business ethics and corporate social responsibility, to respect others and to be loyal to his/her employer	The student is guided by the principles of social responsibility and ethical action in work related to designing urban policies.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
	[MSGSL3_K02] critically assesses the level of his/her knowledge in the field of economics; is willing to deepen and update this knowledge throughout his/her life	The student consciously updates his/her knowledge of cities and their role in sustainable development, treating it as an element of professional development.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
	[MSGSL3_K01] is ready to recognise the importance of knowledge in the field of economics in the process of identifying and solving economic problems and to consult experts in case of difficulties in solving them independently	The student appreciates the importance of economic knowledge in diagnosing and solving urban problems and uses expert knowledge.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK4] test/exam - oral or written

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	[MSGL3_U13] can prepare presentations and oral speeches on selected specific problems concerning international economic relations (in connection with the chosen speciality within International Economic Relations), using basic theoretical approaches, specialist terminology, principles of collecting data from various sources, their description and interpretation, and drawing conclusions based on scientific literature	The student prepares presentations on selected aspects of sustainable urban development using scientific knowledge and analytical tools.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[MSGL3_U10] can take an active part in a debate, presenting his/her own viewpoint and supporting it with argumentation based on selected theories, opinions of various authors and/or statistical data	The student participates in a debate on sustainable urban development, formulating a position based on theories and data.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[MSGL3_U09] can communicate in an international and culturally diverse environment, using the terminology of international economic relations (in connection with the chosen speciality within the field of International Economic Relations)	The student is able to communicate in an international environment about urban sustainable development policies, using specialized terminology.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[EKONL3_W01] has advanced knowledge of the nature of social sciences, their place in the system of sciences, knows the role of economic sciences in this system and uses universal economic terminology	Knowledge: Has in-depth knowledge of the role of economic sciences in the analysis of urban development and their connections with other social sciences (e.g. sociology, geography, political science). Skills: Uses economic terminology correctly in the context of urban public policies, sustainable development and spatial management. Social competences: Appreciates the interdisciplinarity of social sciences in solving complex urban problems and is able to communicate with representatives of various fields.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report

Subject contents	1. Introduction to Sustainable Urban Development • The concept of sustainable cities: definitions, goals, theoretical frameworks (SDGs, New Urban Agenda) • Contemporary urban challenges (climate, mobility, demography, inequalities) 2. Sustainable urban mobility • Urban mobility planning (SUMP) • Analysis of user behavior and needs of different social groups • Sustainable public transport: integration, efficiency, electrification, digital twin 3. Sustainable urban logistics • Stakeholders and cooperation models in the urban supply chain • Sustainable Urban Logistics Plans (SULP) • Last mile logistics and Physical Internet (PI) • Consolidation centers and logistics support infrastructure 4. Spatial planning and urban development • Spatial conditions of transport and logistics • Metropolitan development and management of spatial conflicts • Infrastructure as a tool development and spatial integration 5. Urban policies and urban management • Local urban policies towards climate challenges (including logistics and mobility) • Evaluation and monitoring of public policies (including logistics and mobility) • Integrated management: cross-sectoral approach to urban policy 6. Spatial justice and participation • Social justice in access to space and services • Social participation in urban planning and management • Transferring experiences from maritime planning to the urban context (e.g. participatory spatial management) 7. Technologies and innovations in urban management • Technologies in transport and logistics: in-motion charging, ITS systems, digital twin • The role of data and digitalization in planning and operationalizing urban policies • Smart city vs. sustainable city: integration of technologies with environmental and social goals		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	participation in the discussion	51.0%	10.0%
	own work presentation	51.0%	30.0%
	exam (closed and open questions)	51.0%	60.0%

Recommended reading	Basic literature	City Logistics and Physical Internet • Matusiewicz, M. (2024). <i>Framework for Physical Internet deployment in cities</i>. Urban, Planning and Transport Research, 12. https://doi.org/10.1080/21650020.2024.2303341 • Matusiewicz, M. (2020). <i>Logistics of the future Physical Internet and its practicality</i>. Transportation Journal, 59(2). https://doi.org/10.5325/transportationj.59.2.0200 Sustainable mobility and urban planning • Wólek, M., Jagiełło, A., & Szmelter-Jarosz, A. (2024). <i>Draft framework for Monitoring and evaluation for sustainable urban mobility: deliverable 1.1 of SUMPs for BSR project</i>. https://interreg-baltic.eu/... • Matusiewicz, M., & Wierzbowska-Kujda, M. (2023). <i>Jak opracować dobry plan zrównoważonej mobilności miejskiej?</i> https://www.teraz-srodowisko.pl/... Practice and barriers to implementing sustainable solutions • Matusiewicz, M. (2024). <i>Shared logistics a clash with reality: results of a survey...</i> Transportation Research Procedia, 79. https://doi.org/10.1016/j.trpro.2024.03.010 • Wólek, M., Jagiełło, A., & Wolański, M. (2021). <i>Multi-criteria analysis in the decision-making process on the electrification of public transport...</i> Energies, 14(19). https://doi.org/10.3390/en14196391 In the field of spatial planning and territorial development (for the metropolitan context) • Kempa, J. (2018). <i>Strategic conditions for the development of Tri-city: Conflicts and cooperation in the context of the metropolitan act</i>. Współczesna Gospodarka, 9(3). https://doi.org/10.26881/wg.2018.3.05 • Zaucha, J. (2024). <i>Public policies for territorial cohesion</i> (recenzja książki). Regional Studies, 58. https://doi.org/10.1080/00343404.2023.2273114
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	Supplementary literature	Additional case studies and practical aspects • Matusiewicz, M., & Rolbiecki, R. (2021). <i>The tendency of city stakeholders to implement sustainable logistics measures...</i> Zeszyty Naukowe / Akademia Morska W Szczecinie. https://doi.org/10.17402/470 • Wołek, M., Wolański, M., Bartłomiejczyk, M., et al. (2021). <i>Ensuring sustainable development of urban public transport: the case of Gdynia and Sopot</i>. Journal of Cleaner Production, 279. https://doi.org/10.1016/j.jclepro.2020.123807 Urban planning theory and strategy • Matusiewicz, M. (2022). <i>Logistyka miejska w świetle idei zrównoważonego rozwoju</i>. Wyd. UG. • Wołek, M., Gromadzki, M., & Jagiełło, A. (2021). <i>Dzielnice, miejskie i metropolitalne plany zrównoważonej mobilności...</i> Wyd. UG. Social and territorial aspects • Kempa, J. (2018). <i>Strategic conditions for the development of Tri-city...</i> Współczesna Gospodarka, 9(3). https://doi.org/10.26881/wg.2018.3.05 • Zaucha, J. et al. (2025). <i>Exploring social justice in marine spatial planning...</i> Journal of Environmental Planning and Management, 68(5). https://doi.org/10.1080/09640568.2023.2279512 Popularizing publications and expert commentaries • Matusiewicz, M., & Wierzbowska-Kujda, M. (2023). <i>Usprawnienie logistyki w miastach powinno obchodzić wszystkich</i>. https://www.teraz-srodowisko.pl/...
	eResources addresses	

Example issues/ example questions/ tasks being completed	Introduction to City Logistics Definitions and Scope of City Logistics The Role of Logistics in City Functioning City Logistics Challenges in the Age of Urbanization and E-Commerce Sustainable Development and Urban Mobility What is Sustainable Mobility? The role of public transport, bicycles, micromobility Emissions, noise and quality of life in cities Planning and implementation of mobility plans SUMP (Sustainable Urban Mobility Plan) methodology and stages The role of stakeholders in planning (authorities, residents, companies) Monitoring and evaluation of activities Innovations in urban logistics Physical Internet, city hubs, consolidation of deliveries Shared logistics theory and practice New models of last mile deliveries (e.g. cargo bike, drones, robots) Traffic and space management in the city Parking policy, delivery zones, quiet logistics Multifunctional streets and shared space ITS and Smart City solutions in freight traffic management The impact of territorial development on logistics and mobility City sprawl and suburbanization The role of spatial planning in shaping mobility Metropolitan cooperation and integrated planning Implementation cases and good practices (case studies) Gdynia and Sulp: case study Amsterdam, Barcelona, Stockholm models of sustainable mobility EU projects (e.g. CIVITAS, SumpS for BSR) Public policies and financing EU funds for sustainable transport Strategic documents: Green Deal, Fit for 55, KPO National laws and local transport plans
Work placement	Not applicable

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