



Subject card

Subject name and code	SPATIAL ECONOMETRICS - A TEAM PROJECT, PG_00066559						
Field of study	Economic Analytics						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Statistics and Econometrics -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Aleksandra Kordalska				
	Teachers		dr Aleksandra Kordalska				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45		4.0		61.0	110
Subject objectives	Analyzes socio-economic phenomena using spatial data, creating innovative solutions to complex problems as a team						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U01] Develops innovative solutions for complex and unstructured processes, considering unpredictable environmental conditions by synthesizing information from multiple sources	creates innovative solutions to complex and unstructured problems by adapting the methods used to the nature of the analyzed economic phenomena by synthesizing information from many sources			[SU4] Assessment of ability to use methods and tools		
	[K7_W02] Understands the significance and interrelationships of key components describing economic processes, drawing on in-depth knowledge aligned with major developmental trends in scientific disciplines related to the field of economic analytics.	identifies interactions in space between variables describing socio-economic phenomena, using knowledge consistent with the main trends in the development of econometric research			[SW1] Assessment of factual knowledge		
	[K7_U05] Collaborates with others in team projects, effectively fulfilling both leadership and team member roles to achieve established goals	performs analytical work demonstrating the ability to work in a team			[SU3] Assessment of ability to use knowledge gained from the subject		

Subject contents	Introduction to spatial data analysis Classification and visualization of spatial data Drawing quantile, box and other maps in GeoDa and QGIS Basics of grouping and classification in spatial studies Concentration and specialization in spatial economic analyzes (location coefficients, Lorenz curve, Gini index, regional specialization indices) Statistical measures and tests in exploratory analysis of spatial data (spatial heterogeneity and autocorrelation) Weight matrices and testing of global and local spatial autocorrelation One-equation and one-dimensional models of spatial regression types of spatial interactions in the econometric model Construction of spatial models with different types of interactions, MP estimation and verification, spatial model selection procedure Panel spatial models construction The procedure for selecting a panel spatial model Multi-equation MP spatial models of apparently independent regressions Spatial models with jointly interdependent equations														
Prerequisites and co-requisites															
Assessment methods and criteria	<table border="1" data-bbox="448 546 1489 689"> <thead> <tr> <th data-bbox="448 546 798 584">Subject passing criteria</th> <th data-bbox="802 546 1141 584">Passing threshold</th> <th data-bbox="1145 546 1489 584">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 591 798 620">Exam</td> <td data-bbox="802 591 1141 620">55.0%</td> <td data-bbox="1145 591 1489 620">50.0%</td> </tr> <tr> <td data-bbox="448 627 798 656">Quizzes</td> <td data-bbox="802 627 1141 656">0.0%</td> <td data-bbox="1145 627 1489 656">10.0%</td> </tr> <tr> <td data-bbox="448 663 798 689">Project and written test</td> <td data-bbox="802 663 1141 689">55.0%</td> <td data-bbox="1145 663 1489 689">40.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Exam	55.0%	50.0%	Quizzes	0.0%	10.0%	Project and written test	55.0%	40.0%
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Example issues/ example questions/ tasks being completed	Based on the spatial data of the Central Statistical Office, conduct an analysis of the location and concentration of the number of employees by sectors and voivodeships from the selected year														
Work placement	Not applicable														

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