



Subject card

Subject name and code	SPATIAL ECONOMETRICS - A TEAM PROJECT, PG_00060740						
Field of study	Economic Analytics						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024		
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	Part-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	Katedra Statystyki i Ekonometrii -> 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	8.0	0.0	16.0	0.0	0.0	24
	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	24	10.0		66.0		100
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_W02] explains the meaning and interdependence of key components describing economic processes, using in-depth knowledge consistent with the main trends in the development of scientific disciplines related to the field of study	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_U01] creates innovative solutions to complex and unstructured problems, taking into account the variability of the environment by synthesising information from many 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_U05] cooperates with other people in the implementation of teamwork, both as a leader and a team member, effectively achieving the assumed 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 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											
Prerequisites and co-requisites												
Assessment methods and criteria	<table border="1" data-bbox="451 506 1487 539"> <thead> <tr> <th data-bbox="451 506 794 539">Subject passing criteria</th> <th data-bbox="794 506 1137 539">Passing threshold</th> <th data-bbox="1137 506 1487 539">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 539 794 573">Exam</td> <td data-bbox="794 539 1137 573">55.0%</td> <td data-bbox="1137 539 1487 573">50.0%</td> </tr> <tr> <td data-bbox="451 573 794 607">Project</td> <td data-bbox="794 573 1137 607">55.0%</td> <td data-bbox="1137 573 1487 607">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Exam	55.0%	50.0%	Project	55.0%	50.0%
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Recommended reading	Basic literature	Kopczewska K., Ekonometria i Statystyka przestrzenna z wykorzystaniem programu R Cran, Wyd. CeDeWu Warszawa 2007 Suhecki B. red. nauk., Ekonometria przestrzenna. Metody i modele, analizy danych przestrzennych, Wyd. C.H.Beck, Warszawa 2010 Suhecki B. red. nauk., Ekonometria przestrzenna II. Modele zaawansowane, Wyd. C.H.Beck, Warszawa 2012										
	Supplementary literature	Baltagi B.H., Econometric Analysis of Panel Data, 5th ed, Wiley, Chichester 2014 Suhecka J. red.nauk., Statystyka przestrzenna. Metody analizy struktur przestrzennych, Wyd. C.H.Beck, Warszawa 2014										
	eResources addresses	Adresy na platformie eNauczenie: Ekonometria Przestrzenna - Projekt Zespołowy - 2023/2024 (N) - Moodle ID: 37548 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=37548										
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											