



## Subject card

Subject name and code	SPATIAL ECONOMETRICS - A TEAM PROJECT, PG_00060901						
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 (on-line)		Mode of delivery		blended-learning		
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: 18.0						
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	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exam	55.0%	50.0%
	Project	55.0%	50.0%
Recommended reading	Basic literature	Kopczewska K., Ekonometria i Statystyka przestrzenna z wykorzystaniem programu R Cran, Wyd. CeDeWu Warszawa 2007 Suchecky B. red. nauk., Ekonometria przestrzenna. Metody i modele, analizy danych przestrzennych, Wyd. C.H.Beck, Warszawa 2010 Suchecky 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 Suchecky J. red.nauk., Statystyka przestrzenna. Metody analizy struktur przestrzennych, Wyd. C.H.Beck, Warszawa 2014	
	eResources addresses	Adresy na platformie eNauczanie: Ekonometria Przestrzenna - Projekt Zespołowy - 2023/2024 (N) - Moodle ID: 37548 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37548">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37548</a>	
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		