



## Subject card

Subject name and code	QUANTITATIVE METHODS IN THE ECONOMICS OF SPORT, PG_00058523						
Field of study	Economics						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2025/2026		
Education level	first-cycle studies		Subject group		Optional subject group 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	3		Language of instruction		Polish		
Semester of study	5		ECTS credits		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Katedra Statystyki i Ekonometrii -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Michał Pietrzak				
	Teachers						
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		5.0		50.0	100
Subject objectives	Describes the possibilities of using quantitative methods in terms of their selection and obtaining reliable data						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W03] identifies reliable sources of information relevant to the analyzed issues		identifies reliable sources of obtaining information required to conduct analyzes of the activities of the sports sector		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_U06] acquires new knowledge by planning lifelong learning strategies		acquires new knowledge necessary to conduct analyzes of the activities of the sports sector		[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject		
Subject contents	Theoretical basis of multidimensional comparative analysis. Application of taxonomic measure of development for multidimensional evaluation of economic objects, including players, coaches, clubs and sports facilities. The principles and steps of linear ordering in ranking economic facilities. The use of cluster analysis to group economic objects. Application of different clustering methods (agglomerative, divisional or optimization). Basics of sports project management, life cycle of sports projects, specifics and problems of sports project management. Application of multi-criteria methods to select the best project due to the adopted criteria.						
Prerequisites and co-requisites	mathematics, macroeconomics, microeconomics, statistics						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	exam		60.0%		50.0%		
	colloquium (lab)		60.0%		50.0%		

Recommended reading	Basic literature	<p>Kufel ,T. (2022). Ekonometria. Rozwiązania problemów z wykorzystaniem programu Gretl. Warszawa; Wydawnictwo Naukowe PWN</p> <p>Trzaskalik, T. (red.) (2014). Wielokryterialne wspomaganie decyzji. Metody i zastosowania, Warszawa: PWE</p> <p>Kopczewska, K., Kopczewski, T., Wójcik, P. (2016). Metody ilościowe w R. Aplikacje ekonomiczne i finansowe, Warszawa: CeDeWu Sp. Zo.o.</p> <p>Górecka, D. (2009). Wielokryterialne wspomaganie wyboru projektów europejskich, Toruń: TNOiK</p> <p>Walesiak, M., Gatnar, E. (2009). Statystyczna analiza danych z wykorzystaniem programu R, Warszawa: PWN</p>
	Supplementary literature	Trzaskalik, T. (red.) (2006). Metody wielokryterialne na polskim rynku finansowym. Warszawa: PWE
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	<p>Ranking of sports clubs in terms of sports achievements and social impact.</p> <p>The use of multi-criteria methods to choose the best club for a player based on the adopted criteria.</p>	
Work placement	Not applicable	