



Subject card

Subject name and code	STATISTICS II, PG_00061103						
Field of study	Management						
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	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			English Lectures and laboratories will be carried in English		
Semester of study	2	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	prof. dr hab. Stanisław Kot					
	Teachers	dr Olgun Aydin prof. dr hab. Stanisław Kot					
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	6.0		49.0		100
Subject objectives	Uses appropriately selected statistical methods to analyze business data, making a critical assessment of the results obtained						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U02] presents logical and solid arguments about the obtained results, by analyzing and synthesizing information in various business contexts, approaching their interpretation critically	critically interprets the obtained analysis results, taking into account the broad business context			[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject		
	[K7_W02] explains the meaning and interdependence of the 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	explains the meaning and interdependence of key components describing economic phenomena using statistical methods for their analysis			[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects		
Subject contents	Probability and its properties Basic principles of probabilities, Bayes' theorem Random variables, parameters of distributions Discrete (including: binomial, Poisson) and continuous (including: uniform, normal) distributions Population and sample, sample distributions and statistics, estimators Confidence intervals for the mean and proportion Determining the sample size Testing statistical hypotheses Mean and ratio tests for one and two samples Chi-square test Nonparametric tests Tests in correlation analysis Least squares method - linear and linearized models Maximum likelihood method						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Tutorial tasks	60.0%	50.0%
	Test	60.0%	50.0%
Recommended reading	Basic literature	McClave J.T., Benson P.G., Sincich T. (2008), Statistics for Business and Economics, Pearson/Prentice Hall Aczel A.D. (1989), Complete Business Statistics, Irwin	
	Supplementary literature	Newbold P., Carlson W.L., Thorne B.M., Statistics for Business and Economics, Pearson Miller I., Miller M., John E. Freund's mathematical statistics with applications, Pearson/Prentice Hall Wackerly D., Mendenhall W., Scheaffer R.L., Mathematical statistics with applications, Thomson Brooks/Cole	
	eResources addresses	Podstawowe https://enauczanie.pg.edu.pl/moodle/course/view.php?id=36602 - Power point presentations of successive lectures Uzupełniające Adresy na platformie eNauczanie: Statistics II 2024 - Moodle ID: 36602 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=36602	
Example issues/ example questions/ tasks being completed	<p>Examples</p> <p>What are basic properties of the Normal distribution?</p> <p>The sample mean as the unbiased and a consistent estimator of the population mean.</p> <p>Estimating regression functions</p> <p>Testing the goodness of fit of a theoretical distribution</p> <p>Testing differences between population means when samples are independent</p>		
Work placement	Not applicable		