

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	STATISTICS I, PG_00061097							
Field of study	Management							
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			English		
Semester of study	1		ECTS credits			4.0		
Learning profile	general academic profile		Assessment form			assessment		
Conducting unit	Department of Statistics and Econometrics -> Faculty of Management and Economics							
Name and surname	Subject supervisor	dr inż. Sabina Szymczak						
of lecturer (lecturers)	Teachers		dr inż. Sabina					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	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 classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM
	Number of study hours	45		6.0		49.0		100
Subject objectives	Formulates and solves problems using appropriate methods and reliable data, obtaining results that explain the given phenomena.							
Learning outcomes	Course outcome		Subject outcome			Method of verification		
	[K7_U05] cooperates with other people in the implementation of teamwork, both as a leader and a team member, effectively achieving the assumed goals		prepares statistical analyzes and, as part of teamwork, interprets the obtained results			[SU2] Assessment of ability to analyse information		
	[K7_W06] identifies reliable sources of information relevant to the analyzed issues		selects appropriate methods for a correctly identified problem and obtains a solution based on reliable data			[SW1] Assessment of factual knowledge		
Subject contents	Types of statistical features and measurement scales Distribution visualization (histogram, boxplot) Location measures: arithmetic mean, geometric mean, mode, median, quartiles Dispersion measures Measures of the shape of the distribution							
	Analysis of interdependencies between quantitative and qualitative features (correlation, Pearson's linear correlation coefficient; rank correlation coefficients, contingency coefficients) Index account (individual and aggregate price, quantity and value Laspeyres, Paasche and Fisher indices, single-base and chain indices) Elements of descriptive analysis of a time series (linear and non-linear trend function, seasonality) Elements of linear regression model analysis: function parameters, goodness of fit.							
Prerequisites and co-requisites								
Assessment methods and criteria	Subject passin	g criteria	Pass	ing threshold		Perc	centage of the	final grade
	Laboratories (final te	st, exercises)	60.0%			50.0%		
	Lecture (final test, quizes)		60.0%			50.0%		

Recommended reading	Basic literature	Aczel A.D., Sounderpandian J. (2008), Complete Business Statistics. McGrawHill.				
		Dalgaard, Peter. Introductory Statistics with R. 2nd ed. New York: Springer, 2008.				
		Baldock, Sarah. Using R for Statistics by Sarah Baldock. 1st ed. 2014. Berkeley, CA: Apress, 2014				
	Supplementary literature	Kot S.M., Sokołowski A., Jakubowski J., Statystyka, Difin, Warszawa, 2007				
		Górecki, Tomasz. <i>Podstawy statystyki z przykładami w R / Tomasz Górecki.</i> Legionowo: Wydawnictwo BTC, 2011.				
	eResources addresses	Adresy na platformie eNauczanie: STATISTICS I winter24 - Moodle ID: 39413 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=39413				
Example issues/ example questions/ tasks being completed	Using R, analyse the distribution of a variable by calculating the basic descriptive measures and drawing plots. Conclude by comparing the obtained distribution with your knowledge about the given feature.					
Work placement	Not applicable					

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