GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	ESSENTIALS OF STATISTICS, PG_00058545		
Field of study	Economic Analytics		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	first-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	1	ECTS credits	5.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	Dagna Wleklińska	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	16.0	0.0	16.0	0.0	0.0	32

E-learning hours included: 24.0

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	32	10.0	83.0	125

Subject objectives

Selects an appropriate methodology for testing regularities occurring in mass processes, using statistical software to process data and interpret obtained results.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U07] uses information technologies to improve data analysis and decision-making processes	uses statistical software that facilitates the analysis of mass data and supports decision-making processes	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
[K6_W02] demonstrates comprehensive preparation in the field of methods, techniques for formulating and solving problems	formulates the problem appropriately, obtains the data, selects methods necessary for solving the given problem, and interprets the results correctly	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Stages of statistical investigation.
Sampling methods.
Statistical variables and measuring scales.
Random variables and their theoretical distributions.
Non-parametric description of the distribution of the.
Classical and positional measures of central tendency.
Classical and positional measures of differentiation.
Classical and positional measures of asymmetry and kurtosis.
Correlation analysis.
Introduction to regression analysis.
Analysis of the association between categorical variables.
Dynamic analysis index method.
Dynamic analysis trend method
Grouping and presentation of statistical material.
The most common mistakes in statistical research.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Tutorial exam	60.0%	100.0%

Recommended reading

Basic literature	Barrow, M. (2012), Statistics for Economics, Accounting and Business Studies, Harlow: Prentice Hall. Newbold, P., Carlson, W.L., Thorne, B. (2019). Statistics for Business and Economics, New York: Pearson Education.

	Supplementary literature	Agresti, F. (2012). Statistics. The Art and Science of learning from data, Boston: Pearson Education. Aczel, A. (2008). Complete Business Statistics, New Jersey: Wohl Publishing.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Explain the difference between random and convenient selection. Describe briefly the measurement theory. Make a complex structure analysis of the households income in the Pomeranian Voivodeship in 2019. Check if there is a correlation between gender and consumer behaviour. On the basis of the data from the "Exam" file, calculate and interpret the dynamic measures of emigration in Poland. Was the pace of change higher in 1990-2000 or 2000-2010? Justify your answer. Based on the data from the "Exam" file, estimate the regression function for TFR using unemployment as a regressor. Write down the estimated model in the form of an equation. Interpret the structural parameters of the model and the goodness-of-fit measures. Does the estimated model fit well with the real data? Justify your answer.	
Work placement	Not applicable	