GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	STATISTICS , PG_00053791		
Field of study	Management		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2021/2022
Education level	second-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	blended-learning
Year of study	1	Language of instruction	English
Semester of study	1	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Economic Sciences -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Błażej Kochański	
	Teachers	dr Błażej Kochański	

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: 15.0

Statistics for Management 2021/22 - Moodle ID: 16593
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=16593

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	8.0	47.0	100

Subject objectives

Acquiring the ability to use statistics to analyze the business and economic phenomena, with the use of IT tools.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U03] uses mathematical modelling to formulate hypotheses about the behaviour of various subjects and verifies them using advanced statistical and econometric methods		
[K7_W07] knows in depth selected methods and techniques of data acquisition, enabling analysis and modelling of structures and socio-economic relations, processes taking place and their impact on the implementation of objectives of the organization, including government administration, local government and non-profit organizations	The student knows the selected statistical methods and tools used in making business decisions	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects

Subject contents

Statistical research - experiments and observational studies. Types of variables and measurement scales. Visualization of the distribution of a variable (histogram, box plot). Location measures: arithmetic mean, mode, median, quartiles. Measures of dispersion. Measurements of the shape of the distribution. Analysis of interdependencies between quantitative variables (correlation, Pearson's linear correlation coefficient, linear regression: function parameters, measures of fit). Analysis of interdependencies between qualitative features. Indices (individual and aggregate price index, quantity and value indices of Laspeyres, Paasche and Fisher, fixed-base and chain indices). Probability distributions. Normal distribution, standardization of a normal random variable.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Projects	50.0%	20.0%
Tests	60.0%	30.0%
Exam	60.0%	50.0%

Recommended reading	Basic literature	Aczel, Complete Business Statistics Diez et al., OpenIntro Statistics McClave et al., Statistics for Business and Economics
	Supplementary literature	Freedman et al., Statistics
	eResources addresses	Podstawowe https://leanpub.com/openintro-statistics - OpenIntro Statistics - free book and statistical resources
Example issues/ example questions/ tasks being completed	Compare two groups using descriptive statistics based on the data provided. Interpret the results. In a certain population of men their heights and weights have following characteristics: average height = 68 inches statndard deviation = 3 inches average weight = 160 pounds standard deviation = 40 pounds Pearson's correlation = 0.4 Predict the weight of a man when his height is 74 inches.	
Work placement	Not applicable	