University of Gdańsk

Subject card

Subject name and code	Descriptive Statistics, PG_00200375						
Field of study	Logistics and Mobility						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's 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	2		ECTS credits	5.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Department of Statistics -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Ewa Wycinka, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	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		0.0	80.0	125	
Subject objectives	The aim of this course is to familiarize students with descriptive statistics concepts, such as how to collect and organize data, present it graphically, use statistical measures, and interpret their values to facilitate decision-making.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[LML3_U03] is able to analyze the causes and course of specific logistics and mobility processes and systems, and accurately analyze these processes and systems with the help of adequate economic and social methods and tools	The student can use statistical methods to study the correlation and causality of phenomena. They can interpret the obtained results.	[SU4] test/exam - oral or written
	[LML3_W06] knows to an advanced degree selected methods and tools, including statistical techniques, to describe and model logistics and mobility processes and systems	The student knows methods of organizing and visualizing data that allow for describing logistics processes and systems.	[SW4] test/exam - oral or written
	[LML3_K01] recognizes the importance of knowledge in the field of logistics and mobility in the process of identifying and solving economic problems, is ready to interact with other participants in the learning process, and consulting experts in case of difficulties in solving them on their own	The student can critically analyze research results, including those obtained by other entities. Questions and concerns arising during work on the project should be discussed with the course instructor during consultations.	[SK1] oral statement/conversation/ discussion [SK4] test/exam - oral or written
	[LML3_W08] has knowledge of the main and logistics processes in companies, as well as the changes in these processes, knows what their causes, course, scale, consequences are and what is the impact of external stakeholders on them	The student has knowledge of methods for investigating regularities and relationships between analyzed phenomena, as well as methods for analyzing changes in phenomena over time.	[SW4] test/exam - oral or written
	[LML3_K02] is aware of the level of his knowledge in the field of logistics and mobility, understands the need to deepen and update this knowledge throughout life	The student is aware of their level of knowledge, can expand it, and use appropriate sources.	[SK4] test/exam - oral or written
	[LML3_U02] is able to use its theoretical knowledge and acquire data to analyze specific logistics and mobility processes and systems, and to analyze these processes and systems using methods developed in economics, finance, management science, logistics and mobility	The student can acquire data, organize it, and analyze it using appropriate methods.	[SU4] test/exam - oral or written
	[LML3_U01] is able to correctly interpret economic and social phenomena and apply knowledge of economics, finance, management sciences, logistics and mobility to explain economic phenomena	The student can interpret the results of statistical measures and identify the advantages and disadvantages of individual measures.	[SU4] test/exam - oral or written

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Basic Concepts of Statistics and Statistical Methods: This includes understanding terms like population, sample, and variable characteristics. It also covers statistical research methods, classification, survey design, and sampling techniques.
Data Processing: Summarizing, organizing, and grouping data. Creating tables, cross-tabulations, and graphical representations.
Descriptive Statistics: Classic and robust measures of central tendency (mean, weighted mean, median, mode) and measures of dispersion (range, variance, standard deviation, coefficient of variation, skewness).
Correlation Analysis: Scatter plots, correlation analysis, calculating and interpreting correlation coefficients, limitations of correlation analysis, applications, coefficient of determination, and regression variance analysis.
Regression: Linear regression with a single independent variable, measures of goodness of fit, regression limitations,
Time Series: Measures of dynamics, simple and composite indices, and trend functions.

Topics requiring clarification can be discussed during the consultation.
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<tr><td>Prerequisites and co-requisites</td><td>Mathematics Applications in Economics and Management</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>written exam</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Statistics for business and economics / Anderson [David R. et al.], Cengage Learning EMEA, 5th edition, cop. 2020.</td></tr>
<tr><td>Supplementary literature</td><td>Statistics for business and economics / Anderson [David R. et al.], Cengage Learning EMEA, 5th edition, cop. 2020.

Applied business statistics : making better business decision / Ken Black, John Wiley & Sons, cop. 2011.

Complete business statistics / Amir D. Aczel, Jayavel Sounderpandian, McGraw-Hill Higher Education, 2009</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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