



Subject card

Subject name and code	Essentials of Statistics, PG_00037123						
Field of study	Economic Analytics						
Date of commencement of studies	October 2020	Academic year of realisation of subject				2020/2021	
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	Full-time studies	Mode of delivery			e-learning		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			5.0		
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 inż. Agnieszka Wałachowska				
	Teachers		mgr inż. Sabina Szymczak dr inż. Agnieszka Wałachowska				
Lesson type and method of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	E-learning hours included: 60.0						
Podstawy statystyki (wykład) - Moodle ID: 5913 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=5913							
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	60		12.0		53.0	125
Subject objectives	<ol style="list-style-type: none"> 1. Introduction to basic concepts of descriptive statistics. 2. Learning practical skills in statistical methods. 3. Ability to analyze statistical data and formulating the correct conclusions. 						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_W09] Knows the ways and tools of acquiring and collecting data, including IT data, used in the analysis and explanation of socio-economic phenomena and processes.		The student has a basic knowledge of the statistical behavior of economic phenomena, knows the methods and tools, including data collection techniques appropriate to create their statistical description.			[SW1] Assessment of factual knowledge	
	[K6_U13] Can improve through systematic acquisition of knowledge and skills.		The student improve their knowledge and skills by statistical analysis of economic phenomena.			[SU1] Assessment of task fulfilment	
[K6_U07] Can use quantitative methods to analyse and solve economic problems using information technologies.		The student can choose the method of describing the type of data, using both accounting calculations and statistical software. He also interprets the obtained results.			[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
Subject contents	<p>Non-parametric description of the distribution of the sample: the ranks of distribution, histogram, empirical distribution function.</p> <p>Parametric description of the distribution of the sample: measures of location, variability, asymmetry and concentration, Atkinson etc., two or more dimensional nonparametric description of the distribution of the sample: frequency distribution (two-dimensional), histograms, scatter plots.</p> <p>Parametric description of the two-dimensional population: moments, covariance, correlation coefficient, partial and multiple correlation coefficient, Spearman's rank correlation coefficient, multiple regression functions, the method of least squares, introduction to time series analysis, classical decomposition of time series, Introduction to the theory of indices: dynamics' indices, price indices, equivalence scales.</p>						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Final test	60.0%	50.0%
	Written exam	60.0%	50.0%
Recommended reading	Basic literature	<p>Kot S.M., Sokołowski A., Jakubowski J. „Statystyka”, Difin, Warszawa, 2007.</p> <p>Bartos J., Dyczka W., Krysicki W. "Rachunek prawdopodobieństwa i statystyka matematyczna w zadaniach część 1 i 2", PWN, Warszawa 2004.</p> <p>Luszniewicz A., Słaby T., "Statystyka z pakietem komputerowym STATISTICA PL", Warszawa 2008.</p> <p>Sobczak M. „Statystyka. Podstawy teoretyczne, przykłady, zadania." Wyd. UMCS, Lublin, 1998.</p> <p>Elektroniczny Podręcznik Statystyki PL, Kraków, StatSoft (2006) https://www.statsoft.pl/textbook/stathome.html</p>	
	Supplementary literature	<p>Jóźwiak J., Podgórski J., "Statystyka od podstaw", PWE, Warszawa 2009.</p> <p>Aczel A.D., Sounderpandian J., "Statystyka w Zarządzaniu", PWN, Warszawa 2018.</p> <p>Pułaska-Turyńska B., "Statystyka dla ekonomistów", Difin, Warszawa 2005.</p>	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		