

COURSE DESCRIPTION CARD

Bialystok University of Technology Faculty of Engineering Management									
Field of study	Management							Degree level and programme type	first degree/ second degree
Specialisation/ diploma path	-							Study profile	-
Course name	Statistics							Course code	IS-FM-00082W
								Course type	elective
Forms and number of hours of educational activities	L	C	LC	P	SW	FW	S	Semester	winter
		30						No. of ECTS credits	6
Entry requirements									
Course objectives	Student learns the basic measures of describing a statistical community. Student calculates and interprets statistical measures, is able to draw conclusions and present research results, is able to use computer tools for statistical data analysis.								
Course content	Descriptive Statistics: Definition of statistics. Population and sample. Types of variables. Graphic and tabular presentation of qualitative data. Measures of Location. Measures of Dispersion. Measures of Asymmetry. Correlations and Simple Linear Regression. Simple Linear Regression. Model parameters. The method of least squares. The least squares estimators. Measures of quality estimation.								
Teaching methods	problem tasks solved in small groups and individually, project method								
Assessment method	Project task, knowledge test								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
	Knowledge: the graduate knows and understands								
LO1	the statistical material in the form of a database							-	
LO2	the basic measures of statistical description and its interpretation							-	
	Skills: the graduate is able to								
LO3	apply and calculate the relevant statistics in the study of the structure of economic phenomena and interpret the obtained results							-	
LO4	select, apply and interpret the indicators of the analysis of the dynamics of phenomena							-	

L05	choose and use the methods of mathematical statistics for statistical inference	-
L06	assess the nature and strength of the relationship between the studied variables	-
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed
L01	Individual work during classes, project report	C
L02	Individual work during classes, project report	C
L03	Individual work during classes, project report	C
L04	Individual work during classes, project report	C
L05	Individual work during classes, project report	C
L06	Individual work during classes, project report	C
Student workload (in hours)		No. of hours
Calculation	Participation in classes	30
	Participation in consultations	10
	Preparation to the knowledge test	20
	Preparing for classes	45
	Preparing a project task	45
	TOTAL:	150
Quantitative indicators		HOURS No. of ECTS credits
Student workload – activities that require direct teacher participation		40 1,6
Student workload – practical activities		110 4,4
Basic references	<ol style="list-style-type: none"> 1. Mann, Prem S. (1995). Introductory Statistics (2nd ed.). Wiley 2. Trochim, William M. K. (2006). "Descriptive statistics". Research Methods Knowledge Base. Retrieved 14 March 2011. 3. Ott, Lyman and Michael Longnecker (2016)). An Introduction to Statistical Methods & Data Analysis. 7th ed., Cengage Learning, 4. Mendenhall, William, et al. (2013). Introduction to Probability and Statistics. 14th ed., Cengage Learning, 	
Supplementary references	<ol style="list-style-type: none"> 1. "Drawing Conclusions From Data: Descriptive Statistics, Inferential Statistics, and Hypothesis Testing", Interpreting and Using Statistics in Psychological Research, 2455 Teller Road, Thousand Oaks California 91320: SAGE Publications, Inc, pp. 145–183, 2017, 2. Babbie, Earl R. (2009). The Practice of Social Research (12th ed.). Wadsworth. pp. 436–440 	
Organisational unit conducting the course	International Department of Logistics and Service Engineering	Date of issuing the programme
Author of the programme	Justyna Kozłowska, PhD	22.02.2022

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar