

Module description (syllabus): Statystyka matematyczna

Module title:	Statystyka matematyczna	ECTS	4
Module title translation:	Mathematical statistics		
Module for study direction:	Ekonomia		

Module language: angielski		Study level: 2	
Study cycle: stacjonarne	Module status: kierunkowy - obowiązkowy	Semester number: 1 semestr zimowy	
Academic Year from which module description is valid :		2020/2021	Catalogue number: EKR-E-2S-1-08-KO-2020-EN

Person in charge of the module:	Monica Pratesi, prof.		
Teachers responsible for classes:	prof. Monica Pratesi		
Unit responsible for the module:	Katedra Polityki Rozwoju i Marketingu		
Faculty in charge:	Wydział Ekonomiczny		
Objectives of the module:	a.The ability to use different measures to analyze the file of data b.The skills to use different methods of estimation c.Analyze the relation between explained variable and set of independent variables Lectures Theoretical introduction: Descriptive statistics (Data and Statistics, Frequency and Graphs, Means and Variance, Association) Probability (Assigning Probabilities, Discrete Distributions, Continuous Distributions) Sampling and Interval Estimates (Sampling Distribution, Interval Estimate) Testing-1pop-mean (Hypothesis Testing) Inference-2pops-mean (Means, Proportions) Regression (Simple Regression, Multiple Regression) Classes Excercises: Descriptive statistics (Data and Statistics, Frequency and Graphs, Means and Variance, Association) Probability (Assigning Probabilities, Discrete Distributions, Continuous Distributions) Sampling and Interval Estimates (Sampling Distribution, Interval Estimate) Testing-1pop-mean (Hypothesis Testing) Inference-2pops-mean (Means, Proportions) Regression (Simple Regression, Multiple Regression)		
Teaching forms and number of hours:	a. lectures - no of hours: full time study: 15, part-time study. 0 b. classes - no of hours: full time study: 15, part-time study. 0		
Teaching methods:	discussion, problem solving, consultation with the lecturer, lectures		
Initial requirements and formal prerequisites:	basic statistics and mathematics		
Learning outcomes:	Knowledge - knows and understands: 1. student knows and understands different statistics for analyzing various economic phenomena	Skills - can: 2. student is able to use different methods of estimation	Competences - is ready for: 3. student is ready for critical evaluation of economic relations basing of conclusions from statistical analysis
Assesment methods:			
Formal documentation of the learning outcome:	tests, exams individual student's projects		
Elements of the final grade and their weights:			
Place of teaching:	blended learning		
Teaching materials (obligatory and additional): 1. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, 2018, Essential of Statistics for Business and Economics, Southwestern Cengage Learning 2. Materials and exercises provided by the teacher on the Moodle Platform			
Remarks: +, ver-lw			

Quantitative indicators describing the module:	
Estimated total number of student work hours (contact and own work) necessary to achieve the learning outcomes assumed for the module - on this basis, complete the ECTS field:	91/0
The total number of ECTS points which the student receives in module requiring direct participation of academic teachers or other persons:	1.44/0 ECTS

Table of compliance of the directional learning outcomes with the effects of the module			
Outcome category	Learning outcomes for module:	Reference to effects for the study program for the direction of study	The impact of classes on the directional effect*)
Knowledge	1. student knows and understands different statistics for analyzing various economic phenomena	EK2_KW03	3
Skills	2. student is able to use different methods of estimation	EK2_KU02	3
Competences	3. student is ready for critical evaluation of economic relations basing of conclusions from statistical analysis	EK2_KK01	3

*) 3 - advanced and detailed, 2 - significant, 1 - basic