COURSE DESCRIPTION

University: *University of Presov*	
Faculty/university workplace: *Faculty of Management and Business*	
Code: 7KFUM/STAT-ER/24	**Course title:** *Statistics*
Type, scope and method of educational activity: *Type of educational activities: lecture and seminar* *Scope of educational activities: 1 hour lecture / 1 hour seminar per week* *Method of educational activities: combined; distance form represents max 30%, via MS Teams, LMS Moodle or other applications and platforms.*	
Number of credits: *5*	
Recommended semester: *summer*	
Study grade: *1.*	
Prerequisites: -	
Conditions for passing the course: *Continuous evaluation:* - *Continuous written examination (maximum of 30% - A student can take the exam only if he / she gets at least 15%).* *Final evaluation:* - *Final written test (exam) (maximum of 70%).* *The overall evaluation will consist of the sum of points (%) from continuous evaluation and points (%) from final written test (exam).* *Criteria of success (percentage expression of results in the evaluation of the course) are for the classification levels as follows: A: 100,00 – 90,00%; B: 89,99 – 80,00%; C: 79,99 – 70,00%; D: 69,99 – 60,00%; E: 59,99 – 50,00%; FX: 49,99 and less %.* *Passing the course is conditioned by successful passing of all mentioned conditions and fulfillment of the conditions of participation according to the Study Regulations of University of Presov.*	
Learning outcomes: *The graduate of the course will acquire knowledge, skills and competences.* *Knowledge:* *- explain scientific terminology in the field of statistics;* *- specify methods for calculating statistics;* *- describe mathematical and statistical operations used in selected analyses (e.g., economic, financial, managerial, etc.)* *- characterize random processes.*	

Skills:
- apply mathematical and statistical operations;
- apply statistical principles in management;
- apply appropriate qualitative, quantitative and statistical methods of analysis;
- evaluate statistical sets;
- critically evaluate quantitative information in relation to statistical data processing;
- collect, analyse and evaluate information using statistical analysis;
- process database files to create statistical analyses;
- use spreadsheets;
- use statistical software;
- estimate the development trend of the monitored indicator;
- write a comment and opinion on the data, statistical results and development trends;
- evaluate the outputs of statistical analyses and develop professional information output;
- process the analysis of the obtained results.

Competences:
- accuracy and precision when working with data, numbers and various information;
- ability to think logically;
- ability of systematic and analytical thinking;
- ability to critically evaluate information obtained from various sources;
- ability to draw conclusions from identified deviations and development trends;
- ability of cultivated professional oral and written expression in the field of statistical methods;
- consistency and independence in solving work tasks;
- responsibility for the performance of his/her tasks and responsibilities;
- ability to deliver creative solutions.

Course content:

1. *Combinatorics.*
2. *Probability Theory.*
3. *Random Variable. Distribution Function.*
4. *Normal Distribution. Standard Normal Distribution.*
5. *Statistics – Basic Terminology. Descriptive Statistic.*
6. *Estimation Theory.*
7. *Inductive Statistics – Basic Terminology.*
8. *Parametrics Tests.*
9. *Non-Parametrics Tests.*
10. *Correlation Analysis. Pearson Correlation Coefficient.*
11. *Regression Analysis. Linear Regression Model.*
12. *Rank Correlation. Spearman Rank Correlation Coefficient.*
13. *Chi-square Test of Independence.*

Recommended literature:

BRINK, D., 2010. Essentials of Statistics. David Brink and Ventus Publishing. ISBN 978-87-7681-408-3.

LEVIN, J. A., FOX, J. A., FORDE, D. R. 2017. Elementary Statistics in Social Research – updated 12 th edition. New York: Pearson. ISBN 978-0-13-442776-8.

SHAFER, D. S., ZHANG, Z., 2014. Beginning Statistics. Available at: https://www.e-booksdirectory.com/details.php?ebook=12097

Language which is necessary to complete the course: *English*

Notes:

Workload on students:
33% of workload – direct learning at the institution.
67% of workload – self-study, preparation on the exam.

An individualized approach is provided for students with special needs based on the recommendation of the faculty coordinator for students with special needs.

Course evaluation

Total number of students evaluated: *9*

A	B	C	D	E	FX
56%	11%	33%	0%	0%	0%

Lecturers: *Lectures and seminars: doc. PhDr. Petra Vašaničová, PhD.*

Date of last change: *12.04.2024*

Approved by: prof. Ing. Róbert Štefko, Ph.D.