

COURSE DESCRIPTION

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| Name of the higher education institution: <i>University of Presov</i> | |
| Name of the faculty/university workplace: <i>Faculty of Management and Business</i> | |
| Course code: 7KFUM/APLS-ER/26 | Course title: <i>Applied Statistics</i> |
| Type, scope and method of educational activity: <i>Type of educational activity: Lecture, Seminar</i> <i>Scope of educational activity: 2, 1 hour per week,</i> <i>Method of educational activity: Combined</i> | |
| Number of credits: 5 | |
| Recommended semester: <i>2nd year, 3rd semester</i> | |
| Degree of study: 2. | |
| Prerequisites: - | |
| Conditions for passing the course: <i>Continuous evaluation:</i> <ul style="list-style-type: none"> - <i>Active participation in seminars and lectures (maximum of 10%).</i> - <i>Elaboration of solutions to examples (maximum of 20%).</i> <i>Final evaluation:</i> <i>Final written test (exam) (maximum of 70%).</i> <i>The overall evaluation will consist of the sum of points (%) from continuous evaluation and points (%) from final written test (exam).</i> <i>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 %.</i> <i>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.</i> | |
| Learning outcomes: <i>The graduate of the course will acquire knowledge, skills and competences.</i> Knowledge: <ul style="list-style-type: none"> - <i>explain scientific terminology in the field of quantitative research;</i> - <i>specify methods for testing research hypotheses.</i> Skills: | |

- apply mathematical and statistical operations during writing final thesis and during decision-making;
- 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 statistical software;
- evaluate the outputs of statistical analyses and develop professional information output;
- estimate the development trend of the monitored indicator;
- process the analysis of the obtained results.

Competences:

- accuracy and precision when working with data, numbers and various information;
- ability to think logically;
- ability to formulate problem;
- 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.

Course content:

1. Statistics. Basic Terminology.
2. Stages of Quantitative Research. Basic Terminology.
3. Questionnaire.
4. Research Sample.
5. Descriptive Statistics.
6. Inductive Statistics. Hypothesis Testing.
7. Parametric Tests.
8. Non-Parametric Tests.
9. Correlation Analysis. Pearson and Spearman Correlation Coefficient.
10. Contingency. Chi-square Test of Independence.
11. Simple Linear Regression.
12. Multiple Linear Regression.
13. Examples of Statistical Analyses in Software.

Recommended literature:

LEVIN, J. A., FOX, J. A., FORDE, D. R. 2017. *Elementary Statistics in Social Research – updated 12th 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>

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

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

Notes:

Student workload:

33 % of the workload - participation in education (lectures and seminars),

20 % of the workload - preparation for seminars and elaboration of solutions,
47 % of the workload - self-study, preparation for 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: 7

| A | B | C | D | E | FX |
|-----|----|-----|----|----|----|
| 86% | 0% | 14% | 0% | 0% | 0% |

Lecturers:

prof. Ing. Dr. Róbert Štefko, Ph.D., guarantor

Mgr. Tomáš Bačinský, PhD., co-guarantor, lecturer, examiner

Date of last change: March 1st, 2026

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