

Name of university, Name of faculty: Trnava University
Faculty of Education

INFORMATION SHEET OF THE SUBJECT

Code: XMIB015		Name: Basics of Statistical Data Processing			
Cover: Department of Mathematics and Computer Science					
Type of educational activity: Seminar Scope of educational activity (in hours): Weekly: 2 For term of study: ZS 46/LS 60 Method of educational activity: Combined				Number of credits: 3 Recommended semester: WT, ST Study grade: Bachelor	
Recommended semester	Study programme				
2-year WT	Matematika_Bc (XM_Bc) Teaching Mathematics and Teaching English and Literature (XM-Aj-D1) Teaching Mathematics and Teaching Biology (XM-B-D1) Teaching Mathematics and Teaching Ethics (XM-Ev-D1) Teaching Mathematics and Teaching History (XM-His D1) Teaching Mathematics and Teaching Chemistry (XM-Ch-D1) Teaching Mathematics and Teaching Informatics (XM-I-D1) Teaching Mathematics and Teaching German and Literature (XM-Nj D1) Teaching Mathematics and Teaching of Religions Education (XM-Nv-D1) Teaching Mathematics and Teaching Civic Education (XM-VOD1) Teaching Mathematics and Teaching Fine Arts (XM-Vu-D1)				
Underlie subjects:					
Conditions for passing the course:					
Method of evaluation: Completion by taking an examination					
Continuous evaluation: none					
Final evaluation: the final assessment consists of a written test, which consists of two parts: theoretical and practical. A maximum of 40 points may be obtained for the theoretical part of the test and a maximum of 60 points for the practical part. The theoretical part of the test consists of 10 multiple-choice or short-answer problems. The practical part of the test consists mainly of data processing in an Excel spreadsheet. Finished: the course is completed on the basis of a final assessment. A minimum of 91 points is required for an A grade, a minimum of 81 points is required for a B grade, a minimum of 71 points is required for a C grade, a minimum of 61 points is required for a D grade, and a minimum of 51 points is required for an E grade. A condition for passing the course is also the implementation of the non-contact part of the course. This part is implemented mainly by regular study of the material covered in the last seminar, regular preparation for the next seminar, study of electronic courses available in Moodle and recommended study literature, study of video recordings available in Teams, improvement of skills in working with Excel spreadsheet, preparation for the final test.					
Learning outcomes: VV1 The student knows the basic concepts of descriptive statistics and is able to use them appropriately to characterize a set of data. He/she is able to use a spreadsheet effectively in their calculation. VV2 The student knows the basic procedures of test statistics, can perform selected parametric and non-parametric tests using a spreadsheet (or other software) and can interpret them correctly. VV3 The student is able to use descriptive and test statistics methods to evaluate data from a pedagogical experiment, which could be carried out, for example, as part of the preparation of a final or diploma thesis. VV4 The student is able to use the acquired knowledge in the field of descriptive statistics and the acquired skills in working with spreadsheets in his/her future work as a mathematics teacher VV5 The student is able to critically analyse statistical information and conclusions presented in different media					
Schedule of subject: Descriptive statistics. Tables, graphs, numerical characteristics. Binomial and normal distribution. Statistical hypothesis testing. T-test, U-test, Wilcoxon test, Chi-square test and their use in educational research. All solved in Excel. Appropriate interpretation of results.					
Recommended reading: HÍC, P. – POKORNÝ, M.: Opisná štatistika. On-line kurz, 2008, Trnava. HÍC, P. – POKORNÝ, M.: Testovanie štatistických hypotéz. On-line kurz, 2009, Trnava. JUREČKOVÁ, M. – MOLNÁROVÁ, I.: Štatistika s Excelom. AOS, 2005. ANDREJIOVÁ, M.: Štatistické metódy v praxi. Technická univerzita v Košiciach, 2017. CLAUS, G. – EBNER, H.: Základy štatistiky pre psychológov, pedagógov a sociológov. SPN, Bratislava 1998.					
Language requirements: Slovak					
Notes:					
Course evaluation: Assessed students in total: 109					
A	B	C	D	E	FX
36%	27%	13%	11%	7%	6%

Lecturers:

doc. PaedDr. Milan Pokorný, PhD., lecturer, examiner, instructor, seminary supervisor

Date of last change: 01.09.2026

Approved by: doc. RNDr. Dušan Holý, CSc., univer. prof.