## Information sheet for the course Statistics

**University:** Alexander Dubček University of Trenčín

Faculty: Faculty of Social and Economic Relations

Course unit code: KEaE/lz19Pd/14 Course unit title: *Statistics* 

**Type of course unit:** *compulsory* 

### Planned types, learning activities and teaching methods:

2 hours of lectures / 2 hours of seminars per week. 28 hours of lectures / 28 hours of seminars per semester. Full-time.

#### Number of credits: 5

**Recommended semester:** 3<sup>rd</sup>

**Degree of study:** *I* (*Bachelor*)

Course prerequisites: none

#### Assessment methods:

During the semester, students take two written tests. To be awarded credits, students must obtain at least 60% of the total score in each test. Assessment: A: 90% of the total score, B: 85% of the total score, C: 80% of the total score, D: 70% of the total score, E: 60% of the total score. The evaluation will be the arithmetic average from the two tests. In their assessment, lecturers may consider students' activities during the semester. Final assessment: weighted arithmetical average where the evaluation during the semester has a weight of 1/3 and evaluation of the test has a weight of 2/3.

#### Learning outcomes of the course unit:

Students completing the course will acquire orientation in the basic statistical concepts. Students will be equipped with the required theoretical knowledge of statistical methods. Students will be able to apply theoretical knowledge in accordance with the syllabus of the subject. After successful completion of a learning process, students will be able to make some assessment of statistical surveys and evaluations to understand some statistical surveys in accordance with the syllabus of the subject.

#### **Course contents:**

1. Subject, tasks, goals of statistics. Basic concepts of statistics.

- 2. The random variable and its dividing. The function of the density and distribution function.
- 3. Characteristics of the level and position.
- 4. Measures of variability.
- 5. Measures of skewness and kurtosis.
- 6. Fundamentals of the estimates. Point and interval estimation.
- 7. Interval estimation of the arithmetic average of the basic set.
- 8. Testing statistical hypotheses. Parametric tests.
- 9. Non-parametric tests.
- 10. Description and analysis of multivariate statistical series.
- 11. Estimation of the parameters of the regression function.
- 12. Estimates of correlation and determination coefficient estimate.

13. Description and analysis of time series. Potential uses of knowledge in the field of human resources.

### **Recommended of required reading:**

Grmanová, E.: Základy zo štatistiky – Praktikum. TnUAD, Trenčín 2006

Ivanka, L. – Grmanová, E.: Štatistika. TnUAD, Trenčín 1998

Clauss, G. – Ebner, H.: Základy štatistiky pre psychológov, pedagógov a sociológov. SPN, Bratislava 1988

Pacáková, V. a kol.: Štatistika pre ekonómov. Iura Edition, Bratislava 2003

Sodomová, E. a kol.: Štatistika. Ekonóm, Bratislava 1998

# Language: Slovak

## **Remarks:**

The subject is provided in the winter semester in the second year of full-time study and in the summer semester in the second year of part-time study. The subject is mandatory. Number of students in the seminars is 20 to 25 students.

# **Evaluation history:**

Total number of students being assessed: 176

Total hamber of stadents being assessed. 176						
	А	В	С	D	E	FX
	7.95	15.34	16.48	39.77	12.5	7.95
Lectures: RNDr. Dana Jašková, PhD., doc. RNDr. Eva Grmanová, PhD.						
Last modification:						

Supervisor: Doc. Mgr. Sergej Vojtovič, DrSc.