

## DESCRIPTION OF STUDY MODULE\*

**Study programme**

**Applied Informatics and Programming**

**Study module**

**COMPUTER STATISTICS**

**Credits in  
total**

**4**

### Learning outcomes

- To understand and appropriately use statistical terminology, to identify the types of data and select adequate data measurement scales, to apply the stages of statistical research to different practical situations.
- To select appropriate methods for the analysis of available data, to compare certain groups applying parametric or non-parametric criteria, to calculate and evaluate the correlation between the data groups, to perform a regression analysis for financial indicators and to form a model of regression.
- To correctly collect, generate and systematize the data needed for research by applying primary and secondary data resources. To explain and provide the research results orally and in writing, to correctly formulate the findings.
- To critically assess the efficiency of the methods used and findings (results) obtained in a specific situation.

### Aims of study module

The main aim of the Statistics course is to introduce students to statistical methods, statistical measurements and their applications, to use Excel software to perform the data analysis.

### Annotation of a study module

The course enhances students' fundamental knowledge about the main statistical methods, the possibilities of their application. The course fosters students' skills to apply the descriptive statistical methods for data analysis, to correctly form the purpose and hypotheses of research seeking to solve a raised business problem, to correctly select and apply statistical methods for qualitative and quantitative data, to perform a comparison of certain groups applying parametric or non-parametric criteria, to correctly interpret the obtained results, to assess the phenomena and their changes, the correlation, to forecast tendencies and predict possible consequences and their impact on the success of a business. The Excel software is used to perform the data analysis. The course ends with the students' self-study group work – a project, where students perform statistical data research applying the knowledge obtained during the whole course.

### Topics of the subject

1. General statistical theory
2. Statistical information squaring and grouping
3. Absolute and relative values
4. Statistical mean and variance indicators
5. Correlation analysis
6. Regression analysis
7. Inductive statistics

### Procedure for assessment of knowledge and competences

Student progress is assessed in a 10-point criterion-cumulative assessment system: two Progress-check test 0.20 (each 0.10), Project work – 0.3 and Examination – 0.50 of the final assessment grade, which is calculated by the weighted average method. The final evaluation of the knowledge acquired during the course is calculated only subject to completion of all self-work assignments and having received their positive evaluations/grades.  $G = PT1 \times 0.1 + PT2 \times 0.1 + PW \times 0.3 + E \times 0.5$ .

### Main literature

1. Čekanavičius, V., Murauskas, G. (2006). Statistika ir jos taikymai. I dalis / Statistics and its Application. Part I. Vilnius: Publishing House TEV.
2. Čekanavičius, V., Murauskas, G. (2004). Statistika ir jos taikymai. II dalis / Statistics and its Application. Part I. Vilnius: Publishing House TEV.
3. Kasnauskienė, G. (2010). Statistika verslo sprendimams / Statistics for Business Solutions. Vilnius: VU Publishing House.

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\* Short form