

<b>Course title: Statistics</b>
Course code: 13043
ECTS credits: 7
Requirements: None
<b>Basic information</b>
Level of studies: Undergraduate applied studies
Year of study: 2
Trimester: 5
Goal: The adoption of new techniques of data analysis. Combining statistical analysis techniques and methods of discovering new information from databases.
Outcome: After finishing the course, students should be able to identify the types of data and samples, realize the importance of data analysis in the application of modern business, adopt methods for data analysis, data structure analysis and database model building and draw conclusions based on graphical analysis and data visualization.
<b>Contents of the course</b>
Theoretical instruction
1. Classification of statistical analysis methods, data types and measurement scales. Graphic analysis and data visualizations.
2. Multidimensional data analysis.
3. Visualization of complex data and contents of complex databases.
4. Algorithms for data visualization. The concept of knowledge discovery in databases. Evaluation of discovered knowledge.
5. The role of statistics in the process of discovering knowledge in databases.
6. Knowledge discovery in statistical databases.
7. Computer support for statistical surveys.
8. Solving specific problems from practice.
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Study research work
2. Analysis of the realized traffic for a certain service - Excel, SPSS
3. Students create / analyze graphic representations and PP presentations
4. Graphic analysis and data visualizations.

5. Visualization of complex data.
6. Methods and techniques of knowledge discovery in databases.
7. Evaluation of discovered knowledge.
<b>Textbooks and References</b>
1. J. Солдић Алексић, Примењена анализа података, Економски факултет, Београд, 2015.
2. Н.Вуковић, Статистичко закључивање, Факултет организационих наука, Београд
3. 3. Ковачић, Анализа временских серија, Економски факултет, Београд, 1995.
4. 3. Ковачић, Мултиваријациона анализа, Економски факултет, Београд, 1994.
5. Lohninger H., Teach/Me Data Analysis, Springer, 1999.
<b>Number of active classes (weekly)</b>
Lectures: 4
Practical classes: 2
Other types of classes: 1
<b>Grading (maximum number of points: 100)</b>
<b>Pre-exam obligations: Points</b>
Activities during lectures: 5
Activities on practical excersises:
Seminary work: 15
Colloquium: 30
<b>Final exam: Points</b>
Written exam: 50
Oral exam:
<b>Lecturer</b>
Jelena Milutinović, PhD; Ana Anokić, PhD
<b>Associate</b>