Study Programme: Master academic studies of forensics

Course Unit Title: Introduction to Statistics for Forensic Scientists

Course Unit Code: OF-01

Name of Lecturer(s): Dušanka Perišić, Full Professor

Type and Level of Studies: Master Academic Degree

Course Status (compulsory/elective): elective

Semester (winter/summer): Winter

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): face to face

Number of ECTS Allocated:

Prerequisites:

Course Aims: Students should learn basic concepts of statistics, statistical tools and statistical conclusions, as well as their applications in forensics science.

Learning Outcomes:

Students are qualified to apply the principles of statistical reasoning, to correctly interpret statistical reports, and to use appropriate statistical software in analysis of data.

Syllabus:

Theory

Population and sample. Measures of central tendency. Scattering measures. Random variables. Distributions. Inferential statistics: conclusion from the sample to the population. Intervals of trust. Testing of hypothesis. Correlation and regression.

Practice

Students learn to use statistical software R to analyze data.

Required Reading:

- 1. Agresti, A., Franklin, C. (2007): Statistics: The Art and Science of Learning From Data. Prentice Hall.
- 2. Sullivan, M. (2007): Statistics:Informed Decisions Using Data 2ed. Prentice Hall.
- 3. Cvetković, Lj., Lozanov-Crvenković, Z. (2002): Verovatnoća i statistika zbirka zadataka. Futurapublikacije, Novi Sad.
- 4. Glen McPherson: Applying and Interpreting Statistics. Springer, New York, 2001.
- 5. Joaquim P. Marques de Sá: Applied statistics using SPSS, STATISTICA and MATLAB. Springer, Berlin, 2003.

Weekly Contact Hours:4	Lectures: 2	Practical work:2

Teaching Methods:

Lectures are oral presentation of the theory, followed by discussions. Typical problems and their solutions are analyzed in the exercises, by using statistical software R.

The ability to apply acquired knowledge is checked on two preliminary exams. The final exam is oral and the student should show the general understanding of the material.

Knowledge Assessment (maximum of 100 points):

Knowledge Assessment (maximum of 100 points).				
Pre-exam obligations	Points	Final exam	Points	
Preliminary exam(s)	2 x 30	Oral exam	40	