

Study program: Integrated Academic Studies in Medicine			
Course title: Medical Statistics and Informatics			
Teacher: Mijatović Jovanović P. Vesna, Radić F. Ivana, Ukropina N. Snežana, Harhaji V. Sanja, Čanković I. Sonja, Čanković K. Dušan, Šušnjević Lj. Sonja, Mašulović M. Dragan, Škrbić M. Srđan			
Course status: compulsory			
ECTS Credits: 4			
Condition: -			
Course aim: To enable students to use basic statistical-analytical procedures, to design simple surveys, to read professional and scientific literature critically and to apply informational technologies in the field of medical sciences.			
Expected outcome: Students will be able to distinguish the statistical aspects of professional and scientific papers in the field of medical sciences, to use different statistical methods, to process and interpret the data collected in the study and to use computers to solve problems by using pre-built software solutions.			
Content <i>Theoretical education</i> Basic concepts in statistics. Statistical population, units and symbols. Stages of statistical processing and interpretation of results. Relative numbers. Measures of central tendency. Measures of variability. Homogeneity assessment. The types of samples. Trend. Correlation analysis. Parametric and non-parametric tests for testing statistical hypotheses. Method of population health status analysis. Basics of hardware and software architecture of the computer. System and application software. Basics of computer networks and the Internet. Text editing and calculation in tables. The use of computers in medicine (data processing, medical information systems, medical diagnostics, standards in medical informatics, telemedicine and e-health). <i>Practical education</i> Sampling. Selection and use of statistical methods based on problem and variables types. Presenting data in tables and charts. Interpretation of the results and making conclusions. Indicators for population health status analysis. Basic functions of operational system. Working with files. Text editing. Cross-table calculations.			
Literature <i>Compulsory</i> 1. Stewart A. Basics statistics and epidemiology. A practical guide. Abingdon, UK: Radcliffe Medical Press Ltd; 2002. 2. Harris M, Taylor G, editors. Medical statistics made easy, third edition. Banbury, UK: Scion Publishing; 2014. 3. Moore DS, editor. The basic practice of statistics, third edition. New York: W.H. Freeman and Company; 2004. <i>Additional</i> 1. Peacock JL, Peacock PJ, editors. Oxford Handbook of Medical Statistics. Oxford: Oxford University Press; 2011. 2. Riffenburgh R. Statistics in Medicine. San Diego: Academic Press; 2005. 3. Coolidge LF, editor. Statistics: A Gentle Introduction. Third Edition. University of Colorado, Colorado Springs: SAGE publications; 2013.			
Number of active classes		Theoretical classes: 30	Practical classes: 30
Teaching methods: Lecture; Practice; Work on computer			
Student activity assessment (maximum 100 points)			
Pre-exam activities	Points	Final exam	Points
Lectures	10	Written	70
Practices	20	Oral	
Colloquium		
Essay			