TEACHING BIOMEDICAL STATISTICS AT FACULTY OF MEDICINE AND DENTISTRY, PALACKÝ UNIVERSITY IN OLOMOUC

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During their studies and practice, many doctors encounter interesting data. It needs to be statistically processed and the results need to be correctly interpreted. Today, statistical methods are used when publishing results of studies in quality scientific journals. The presentation focuses on a new concept in teaching biomedical statistics in the subjects "Medical biophysics, biometric and computer technology" and "Basics of medical devices and biostatistics". Our goal is to create and innovate teaching methods and texts for lectures, seminars and tutorials. New exercises in descriptive and inductive statistics have been created for tutorials. In descriptive statistics, students will make frequency and contingency tables for categorical data, calculate basic statistical characteristics of numerical data and make various types of graphs with an emphasis on correctly understanding the information they contain. In inductive statistics, they will test statistical hypotheses by t-tests and the chi-square test. The dependence of numerical variables is analysed using the methods of correlation and regression. The instructions for tutorials contain a number of model examples as well as exercises for students to solve without assistance. All of these examples use data related to medicine. For solving exercises, statistical functions and tools in Microsoft Excel 2007 are used. This program was chosen as it is widely available to all students. New test have been created to check the students' knowledge. All academic texts and instructions for tutorials are available at the e-learning application LMS Unifor http://unifor.upol.cz/.