Study program: Integrated academic studies of Pharmacy	
Type and level of the study program: integrated academic studies	
Course title: SOFTWARE DATA PROCESSING (PhIII-SOFDP)	
Teacher (name, middle initial, surname)**:** Mihalj M. Poša, Ana S. Pilipović,Vesna B. Tepavčević	
Course status: elective	
ECTS Credits: 3	
Condition: Mathematics; Statistics	

Course aim

Getting to know the application of some ready-made software package for statistical data processing. These packages allow the application of many statistical methods (hypothesis testing, parameter estimation, factor analysis, regression analysis) quickly and easily with the possibility of error to a minimum.

Expected outcome of the course:

Basic elements of statistics

Processing of experimental dana using software packages

Course description

Theoretical education

1.   Introduction: The use of computers in statistics
2.   Preparation and organization of data
3.   Entering data,
4.   Table of frquences,contingency tables
5.   Measures of centeredness and distribution
6.   Confidence interval for the expected value
7.   Testing the hypothesis
8.   Regression line and correlation
9.   Factor analysis
10. Neural Networks
11.   Displaying the results

Practical education: exercises, other forms of education, research related activities

1.   Entering data
2.   Frequency tables
3.   Contingency tables
4.   Measures of centeredness and distribution
5.   Confidence interval for the expected value
6.   Testing the hypothesis
7.   Regression line and correlation
8.   Factor analysis
9.   Neural Networks
10. Different ways of displaying data

Literature

Compulsory

1. Chemometrics: Statistics and Computer Application in Analytical Chemistry, 2nd Edition, Matthias Otto, Willey, 2007.

Number of active classes				Other:
Lectures: 30	Practice: 15	Other types of teaching:	Research related activities:	

Teaching methods: lectures, practice

Student activity assessment (maximally 100 points)			
Pre-exam activities	**points**	**Final exam**	**points**
Lectures		Written	50
Practices	10	Oral	
Colloquium	40	....	
Essay			