Level: bachelor

Course title: Software for experimental data processing, O-07

Lecturer: Dr. Sanja Rapajić, associate professor

**Status**: elective

**ECTS**: 5

Requirements: none

## **Learning objectives**

Acquiring knowledge about mathematical models of problems which arise from chemistry. Introduction to Microsoft Office and software for data processing and statistical analysis (MatLab or *Mathematica*).

## **Learning outcomes**

The basic knowledge about data processing software. Acquiring skills for solving problems that arise from chemistry, experimental data processing and statistical analysis by using appropriate software.

## **Syllabus**

Theoretical instruction

Windows. Files and directories. Word processing, inserting formulas, tables, images. Graphics. *Mathematica* or MatLab. Data Visualization. Linear and nonlinear regression. Confidence intervals. Statistical tests. Solving mathematical models of practical problems (equations, differential equations, linear and nonlinear systems, integration, and differentiation).

## Practical instruction

It consists of exercises that follow the theoretical lessons.

| Weekly teaching load |            |                          |                   | Other: |
|----------------------|------------|--------------------------|-------------------|--------|
| Lectures:            | Exercises: | Other forms of teaching: | Student research: |        |
| 2                    |            | teaching.                |                   |        |