Level: bachelor	
Course title: Mathematics II	
Status: elective	
ECTS: 5	
Requirements: none	

Learning objectives

To enable students to apply mathematical knowledge of the multivariable calculus, differential equations, probability and statistics; to enable students to use computer solving in solving mathematical and appropriate chemistry contents.

Learning outcomes

Students should have developed:

General abilities: basic knowledge of this field, following the literature, analysis of various solutions and choice of the most adequate one, application in practice and other subjects.
Subject-specific abilities: advance mathematical thinking, solving advanced mathematical problems necessary for mathematical modelling process on the chemical problems.

Syllabus

Theoretical instruction

- Multivariable calculus with mathematical modelling in chemistry.
- Ordinary differential equations with mathematical modelling in chemistry.
- Probability and statistics with mathematical modelling in chemistry.
- Mathematical modelling by using dynamic software.

Practical instruction
Problem solving.

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