Study programme(s): Computer Science

Level: bachelor

Course title: Mathematical Analysis 2

Lecturer: Ivana Štajner-Papuga

Status: obligatory

ECTS: 6

Requirements: Mathematical Analysis 1

Learning objectives

Acquiring basic knowledge and skills in differential calculus in several variables and different types of inegration (multiple ntegrals, line and surface integrals).

Learning outcomes

Successfull students will be able to recognize the type of a problem and to apply techniques studied during the course. They will be able to use the proper softwer support.

Syllabus

- Functions of several variables
- Differential calculus in several variables
- Multiple integrals
- Line integrals
- Surface integrals
- Software support (*Mathematica* or similar)

Literature

1. V. A. Zorich, Mathematical Analysis I, Springer –selected chapters
2. V. A. Zorich, Mathematical Analysis II, Springer –selected chapters
3. F. Ayres, E. Mendelson, Schaum's Outline of Calaculus, McGraw-Hill BookCompany –selected chapters

Weekly teaching load				
Lectures: 2	Exercises: 2	Practical Exercises: 0	Student research: 0	Other: **0**

Teaching methodology

- classical teaching methods;
- demonstrations of softwer;
- exercises.

Grading method (maximal number of points 100)

Pre-exam obligations	**Points**	**Final exam**	**points**
Written test	**40**	*Oral exam*	*40*
Practical test	**20**		