**Study programme(s):** Information Technologies

Level: Bachelor

Course title: Analysis for Students of Informatics

Lecturer: Dušanka Perišić

**Status:** mandatory

**ECTS:** 8

Requirements: ---

## Learning objectives

The aim of the course is to help students to master tools of differential and integral calculus so that they able to use them in analyzing the functions of one real variable.

## **Learning outcomes**

Minimum: Understanding the basic concepts of the differential and integral calculus.

Desirable: Effective application of these concepts in analysis of functions of one real variable

## **Syllabus**

- The concepts of function, limit values and continuity
- Derivatives and their applications
- Antiderivative
- Integrals and their applications
- Sums and Functional sums

#### Literature

- 1. Gilbert Strang. *RES.18-001 Calculus Online Textbook*. Spring 2005. Massachusetts Institute of Technology: MIT OpenCourseWare, <a href="https://ocw.mit.edu">https://ocw.mit.edu</a>. License: <a href="https://ocw.mit.edu">Creative</a> Commons BY-NC-SA.
- 2. J. Stewart, Calculus, Early Transcedentals, Brooks/Cole,20008

Weekly teach				
Lectures:	Exercis	Practical Exercises:	Student research:	Other:
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# Teaching methodology

Lecture sessions and exercise sessions.

## **Grading method (maximal number of points 100)**

Pre-exam obligations	points	Final exam	points
Two colloquia	30+30	Oral exam	40