**Study programmes**: BACHELOR STUDIES - Mathematics

**Course name**: Analysis 2

Lecturers: All lecturers of the Departments of Analysis (Department of Mathematical analysis, Department of Real and complex analysis, Department of Real and functional analysis)

Status: Compulsory

ECTS: 18

Attendance prerequisites: Analysis 1.

**Course aims**: Acquiring knowledge from the Mathematical Analysis, especially regarding functions of several real variables, multiple, line and surface integrals and uniform convergence necessary for further study of close subjects.

**Course outcome:** Student should learn notions of analysis of functions of several variables, the corresponding differential and integral calculus, and their applications. Also, should learn notions functional series, especially Fourier series.

**Course content**: Metric spaces and function of several variables. Differential calculus of several variable functions. Implicit functions and applications in geometry. Multiple Riemann integral. Line and surface integral and their relationship. Sequences and series of functions. Integrals depending on a parameter. Fourier series.

## Literature:

1. D. Adnađević, Z. Kadelburg: Matematička analiza II, Matematički fakultet, Beograd 2005.

Number of hours:	Lectures:	Tutorials:	Laboratory: -	Research: -
16=8+8	8=4+4	8=4+4		
Teaching and learnin	or methods. Fro	ntal / Tutorial		

Assessment (maximal 100 points)						
Lectures	-	Written exam	25			
Exercises / Tutorials	10	Oral exam	35			
Colloquia	30	Written-oral exam	-			
Essay / Project	-					