Study programmes: MASTER STUDIES - Mathematics

Course name: Selected Topics of Real Analysis

Lecturers: Danko Jocić, Miloš Arsenović, Nebojša Lažetić

Status: Optional

**ECTS**: 8

Attendance prerequisites: Analysis 2

**Course aims**: Expanding and upgrading previous knowledge from Measure Theory and Functional Analysis.

Course outcome: The student needs to master some special knowledge of Real Analysis.

**Course content**: Supplementary chapters from some of the following areas: Measure theory, Harmonic analysis, Spectral theory, Theory of differential operators.

## Literature:

- 1. W. Rudin, Real and Complex Analysis
- 2. A. Zygmund: Theory of the Trigonometrical Series
- 3. M.A.Najmark: Differential Operators

Number of hours: 7Lectures: 3Tutorials: 2Laboratory: -Research: 2Teaching and learning methods:Frontal / Tutorial

Assessment (maximal 100 points)			
Course assignments	points	Final exam	points
Lectures	-	Written exam	20
Exercises / Tutorials	10	Oral exam	20
Colloquia	30	Written-oral exam	-
Essay / Project	20		