## Study programmes: MASTER STUDIES - Mathematics

Course name: Selected Topics of Partial Differential Equations

Lecturers: Miodrag Mateljević

Status: Optional

**ECTS**: 8

Attendance prerequisites: No prerequisites.

**Course aims**: Acquisition of general and special knowledge from partial differential equations

**Course outcome:** Upon completion of the course, the student has the necessary knowledge of partial differential equations. He is able to apply knowledge in theory and applications in order to independently solve known and new problems, prepare and defend his master's thesis.

**Course content**: Four important PDE. Sobolev spaces. Linear elliptic equations. Linear evolution equations. Quasilinear partial equations. Nonlinear partial equations.

## Literature:

1. L.C. Evans, Partial Differential Equations, GSM, Vol. 19, AMS, 2002;

2. D. Gilbarg, N. Trudinger, Elliptic Partial Differential Equations of Second Order, Springer, 1983.

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	-
Exercises / Tutorials	50	Oral exam	50
Colloquia	-	Written-oral exam	-
Essay / Project	-		