

Study programmes: Master studies – Mathematics			
Course name: 2M4.09 - Numerical Methods of Optimization B			
Lecturer: Milan Dražić			
Status: Optional			
ECTS: 8			
Attendance prerequisites: Numerical Methods of Optimization A			
Course aims: Acquiring general and specific knowledge of optimization in Banach spaces and regularization of ill-posed problems.			
Course outcome: Upon completion of the course, the student is trained to apply the knowledge of differential calculus in Banach spaces and regularization in Banach and Hilbert spaces. Also, he is able to apply basic regularization algorithms in this spaces.			
Course content: Ill-posed problems, stabilizer, normal solution. Several regularization methods. Approximation of optimization problem and regularization of approximated problem.			
Literature: Васильев Ф. П.: Методы решения экстремальных задач, Наука, Москва, 1981. Васильев Ф. П.: Численные методы решения экстремальных задач, Наука, Москва, 1988.			
Number of hours: 5	Lecures: 3	Tutorials: 2	
Teaching and learning methods: Frontal / Interactive / Lectures / Exercises			
Assessment (maximal 100 points)			
Course assignments	points	Final exam	points
Lectures	-	Written exam	30
Exercises / Tutorials	-	Oral exam	40
Colloquia	-	Written-oral exam	-
Essay / Project	30		