Study programmes: Master studies – Mathematics	
Course name: 2M4.08 - Numerical Methods of Optimization A	
Lecturer: Milan Dražić	
Status: Optional	
ECTS: 8	
Attendance prerequisites: Analysis 3 (Functional Analysis)	
Course aims: Acquiring general and specific knowledge of optimization in Banach spaces.	
Course outcome: Upon completion of the course, the student is trained to apply the knowledge of differential calculus in Banach spaces and optimization in Banach and Hilbert spaces. Also, he is able to apply basic optimization algorithms in this spaces.	
Course content: Differentiation in Banach spaces. Necessary and sufficient conditions for optimality. Weierstrass theorems. Methods of minimization.	
Literature: Васильев Ф. П.: Методы решения екстремальных задач, Наука, Москва, 1981. Васильев Ф. П.: Численные методы решения екстремальных 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		