

Study programmes: PhD studies – Mathematics – Analysis and differential equations			
Course name: 3M174 Fixed point theory			
Lecturers: Nebojša Lažetić			
Status: Optional			
ECTS: 9			
Attendance prerequisites: Functional analysis			
Course aims: Mastering of notions and methods of fixed point theory.			
Course outcome: Student should understand and be able to apply notions and techniques of fixed point theory.			
Course content: Elementary Fixed Point Theorems. Theorem of Borsuk and Topological Transversality. Homology and Fixed Points. Leray-Schauder Degree and Fixed Point Index. The Lefschetz-Hopf Theory.			
Literature:			
1. Andrzej Granas, James Dugundji, Fixed Point Theory, Springer-Verlag, 2003.			
Number of hours: 10	Lectures: 4	Research: 6	
Teaching and learning methods: Frontal / Individual / Research			
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			