Study programmes: PhD studies – Mathematics – Analysis and differential equations			
Course name: **3M169 Complex dynamic systems**			
Lecturers: Miodrag Mateljević			
Status: Optional			
ECTS: 9			
Attendance prerequisites: -			
Course aims: Mastering of notions and methods of complex dynamics systems.			
Course outcome: Student should understand and be able to apply notions and techniques of complex dynamics systems.			
Course content: Dynamics systems. Iterations and behavior of iteration near fixed points. Julia-Fatou sets. Wandering domains. Quasiconformal surgery. Fractals.			
Literature: 1. Blanchard, Complex analytic dynamics on the Riemann sphere, BAMS 11, 1, 1984, 85-141. 2. Carleson, Gamelin, Complex Dynamics Chapter I - IV.			
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			