

Study programmes: Doctoral studies – Mathematics – Probability and statistics			
Course name: Mathematical statistics			
Lecturers: Jelena Jocković, Bojana Milošević, Pavle Mladenović, Marko Obradović			
Status: Optional (compulsory for students of Probability and statistics)			
ECTS: 9			
Attendance prerequisites: none			
Course aims: Acquiring general and specific knowledge concerning mathematical statistics			
Course outcome: Upon completing the course, a student is capable of applying the acquired knowledge and conducting individual scientific research in this field.			
Course content: Discrete distributions of special importance for mathematical statistics. Continuous distributions of special importance for mathematical statistics. Sampling theory. Large sample theory. Linear estimation. Nonparametric estimation. Parametric estimation. Testing parametric statistical hypothesis. Testing parametric statistical hypothesis. Sequential statistical procedures. Bayesian approach and decision theory. Time series. Multivariate statistical analysis.			
Literature:			
С. Уилкс: <i>Математическая статистика</i> , Наука, Москва, 1967.			
С. Стојановић, <i>Математичка статистика</i> , Научна књига, Београд, 1980.			
Number of hours : 10	Lectures: 4	Research: 6	
Teaching and learning methods: Frontal / Individual			
Assessment (maximal 100 points)			
Course assignments	points	Final exam	points
homework	20	Written exam	
Exercises / Tutorials		Oral exam	60
Colloquia			
Essay/Project	20		