Study programmes: Bachelor studies – Mathematics	
Course name: Information theory	
Lecturers: Marko Obradović, Vladimir Božin	
Status: Optional	
ECTS: 5	
Attendance prerequisites: None	
Course aims: Learning basics of information and coding theory.	
Course outcome: Upon completing the course, a student has basic knowledge in information and coding theory and is capable to understand connection between information theory, probability theory, coding theory and its algebraic foundation.	
Course content: Basics of information theory. Entropy and information and their properties. Conditionality in information and coding theory. Noiseless coding. Transmission channels. Source coding theorem. Channel coding theorem. Parity check coding. Applications.	
Literature: 1. Robert Ash, Information Theory (библиотека МФ) 2. Raymond W. Yeung, Information Theory and Network Coding 3. John C. Kieffer, Lecture Notes on Information Theory 4. Виктор А. Обуљен, Теорија информације (у припреми)	

Number of hours: **4**	Lectures: **2**	Tutorials: **2**	Laboratory: **-**	Research: **-**

Teaching and learning methods: Frontal / Tutorial

Assessment (maximal 100 points)				
Course assignments	**points**	**Final exam**	**points**	
Lectures		Written exam	-	
Exercises / Tutorials	10	Oral exam	40	
Colloquia		Written-oral exam		
Essay / Project	50			