

Study programmes: Bachelor studies - Informatics				
Course name: R275 - Data Mining 2				
Lecturers: Nenad Mitić and other lecturers at Department of computer Science				
Status: Optional				
ECTS: 6				
Attendance prerequisites: P103, R270, M120, R274				
Course aims: Further deepening of Data Mining methods, techniques and its applications				
Course outcome: After completion of the course, the student have adopted the advanced techniques of Data Mining and trained for their practical applications.				
Course content: Advanced techniques of data preprocessing: dimensionality reduction, data compression. Mining time series data. Web and text mining. Advanced techniques of associations, correlations and frequent patterns analysis. Advances classification techniques: construction of decision trees, neural networks, kernels for support vector machines. Advanced clustering techniques; clustering multidimensional data. Additional method for anomaly and outliers detection. Statistical methods in Data Mining.				
Literature:				
1. Mehmed Kantardzic: Data mining: Concepts, Models, Methods, and Algorithms, 2nd. ed., John Wiley & Sons 2011				
2. Lior Rokach, Oded Maimon: Data mining with decision trees - Theory and Applications, World Scientific 2008				
(The lecturer can choose another relevant current literature)				
Number of hours: 5	Lectures: 2	Tutorials: 3	Laboratory: -	Research: -
Teaching and learning methods: Frontal lectures, group and individual tutorials and exercises.				
Assessment (maximal 100 points)				
Course assignments	points	Final exam		points
Lectures	-	Written exam		-
Exercises / Tutorials	-	Oral exam		-
Colloquia	20	Written-oral exam		50
Essay / Project	30			