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| **UNIVERSITY OF NIŠ** | | | | | | |
| **I381** | | **Faculty** | | | **Faculty of Science and Mathematics** | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Computer science** | | |
| Study Module (if applicable) | | | |  | | |
| Course title | | | | Data mining and pattern recognition | | |
| Level of study | | | | Bachelor  Master’s  Doctoral | | |
| Type of course | | | | Obligatory  Elective | | |
| Semester | | | | Autumn Spring | | |
| Year of study | | | | Second | | |
| Number of ECTS allocated | | | | 12 | | |
| Name of lecturer/lecturers | | | | Dejan Mančev | | |
| Teaching mode | | | | Lectures Group tutorials  Individual tutorials  Laboratory work  Project work  Seminar  Distance learning  Blended learning  Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *The purpose of the course is to introduce students to methods and machine learning algorithms for intelligent analysis of structural and non-structural data.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| **Mesurement and data. Data analysis and uncertainty. Analysis of structural data: databases, graphs and trees. Analysis of non-structural data: classification, clustering, regression. Analysis of time series. Recurrent neural network and Markov models. Self-organization maps. Finding patterns and rules.** | | | | | | |
| **LANGUAGE OF INSTRUCTION** | | | | | | |
| Serbian (complete course)  English (complete course)  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)  Serbian with English mentoring Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |
| **ASSESSMENT METHODS AND CRITERIA** | | | | | | |
| **Pre exam duties** | **Points** | | **Final exam** | | | **points** |
| **Activity during lectures** |  | | **Written examination** | | |  |
| **Practical teaching** | **20** | | **Oral examination** | | | **50** |
| **Teaching colloquia** | **30** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |