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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of sciences and mathematics | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | **Mathematics** | | |
| Study Module (if applicable) | | | | Probability, Statistics and Financial Mathematics | | |
| Course title | | | | Multivariate analysis | | |
| Level of study | | | | Bachelor  Master’s  Doctoral | | |
| Type of course | | | | Obligatory  Elective | | |
| Semester | | | | Autumn Spring | | |
| Year of study | | | | 1 | | |
| Number of ECTS allocated | | | | 7.5 | | |
| Name of lecturer/lecturers | | | | Aleksandar S. Nastić | | |
| Teaching mode | | | | Lectures Group tutorials  Individual tutorials  Laboratory work  Project work  Seminar  Distance learning  Blended learning  Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Gaining knowledge about multivariate analysis. Data analysis using methods of multivariate analysis.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Multidimensional sample. Mathematical expectation and dispersion of multidimensional random variables. Multidimensional normal distribution. Parameters of multidimensional normal distribution. Wishart distribution and the distribution of Hoteling. Factor analysis. The principal components analysis. Canonical correlation. Discrimination and classification. | | | | | | |
| **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** | **10** | | **Written examination** | | | **40** |
| **Practical teaching** |  | | **Oral examination** | | | **50** |
| **Teaching colloquia** |  | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |