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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) |  |
| Course title | Mathematical analysis 1 |
| Level of study | x☐Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | x☐ Obligatory ☐ Elective |
| Semester  |  x☐ Autumn ☐Spring |
| Year of study  | 2 |
| Number of ECTS allocated | 8 |
| Name of lecturer/lecturers | Snežana Živković-Zlatanović |
| Teaching mode |  x☐Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Understanding the multiple, line, surface and parametric integration.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Jordan measure in Rn . Riemann integral over measurable sets in Rn.Classes of integrable functions. Transformations of variables. Lines in Rn. Line integrals of the first and second order. Surfaces. Surface integrals of the first and second order. Field theory. Proper parametric integrals. Improper parametric integrals. Beta and Gamma function. Fourier coefficients and Fourier series.  |
| **LANGUAGE OF INSTRUCTION** |
| x☐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** | **0** | **Written examination** | **0** |
| **Practical teaching** | **0** | **Oral examination** | **50** |
| **Teaching colloquia** | **50** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |