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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) | General mathematics |
| Course title | Non-Euklidean geometries |
| Level of study | ☐Bachelor x ☐ Master’s ☐ Doctoral |
| Type of course | x☐ Obligatory ☐ Elective |
| Semester  |  x☐ Autumn ☐Spring |
| Year of study  | 2 |
| Number of ECTS allocated | 7.5 |
| Name of lecturer/lecturers | Mića Stanković |
| Teaching mode |  x☐Lectures ☐Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Introduce students to the basics of non-Euclidean geometry.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **The Lobachevsky geometry** **The system of axioms of the space Ln. Parallel and hyper parallel lines in the plane L2. Parallel and hyper parallel lines in the plane and space L3. Skew lines in the space L3. Lobachevsky function. Types and characteristics of isometric transformation of the spaces L2 and L3. Circle, oricircle and equidistant in the plane L2. Sphere, orisphere and equidistant surface in the space L3. The geometry of the surface of the sphere, ori sphere and equidistant surface. Consistency of Lobachevsky geometry.** **The Riemannian geometry****The axioms system of Riemannian space Vn. Clifford parallels. Consistency of Riemannian geometry.** |
| **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** | **6** | **Written examination** | **0** |
| **Practical teaching** | **0** | **Oral examination** | **40** |
| **Teaching colloquia** | **54** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |