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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Faculty of Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | Electrical Engineering and Computing |
| Study Module (if applicable) | Common |
| Course title | Mathematics 1 |
| Level of study | ☒Bachelor ☐ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory☐ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | I |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Kovačević A. Milan, Marinković D. Slađana, Rančić Z. Lidija |
| Teaching mode | ☒Lectures ☐Group tutorials ☐ Individual tutorials☐Laboratory work ☐ Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Acquiring theoretical and applicable knowledge, developing students’ skills and abilityto observe general notions on the basis of particular cases.Introduction to Linear Algebra, Theory of Polynomials and Analytic Geometry. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Basic concepts in Algebra. Elements of Graph Theory and Algebraic structures. Fields of real and complexnumbers. Linear spaces, Linear operators, matrices and determinants, Inversion of matrices. Systems of linear equations. Equivalent systems of vectors and matrices. Analytic geometry in R3 space. Algebraic polynomials, Hurwitz polynomials. Spectral theory of operators and matrices (eigenvalue problem). |
| **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** | **5** | **Written examination** | **20** |
| **Practical teaching** | **15** | **Oral examination** | **20** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |