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| **Study program** Chemistry |
| **Course title** Mathematics |
| **Name of lecturer/lecturers** Mića Stanković/Jovana Nikolov Radenković |
| **Type of course** Obligatory  |
| **Number of ECTS allocated** 7 |
| **Course objectives**Introducing the student to the basics of mathematics. |
| **Course outcomes**Student is able to solve problems and tasks in mathematics. |
| **SYLLABUS***Lectures*The functions of one variable (elementary functions, limits, derivatives, differentials, indefinite and definite integral).Linear algebra (vectors, linear operators, matrices and determinants).Functions of several variables (limits, partial derivative, total differential, multiple integral).Differential equations (equations of the first order: the development variable, homogeneous, linear differential equations, differential equations of higher orders and partial differential equations).*Laboratory work*All areas covered by theoretical teaching are accompanied by appropriate exercises - solving problems fromareas: Functions of one variable, linear algebra, functions of several variables and differential equations. |
| **References**1. D. M. Hirst, Mathematics for Chemists, Macmillan, London, 19832. S. Janković, Viša matematika, udžbenik sa zadacima, Tibet, Niš, 19953. P. Miličić, M. Ušćumlić, Zbirka zadataka iz više matematike I, II, Naučna knjiga, Beograd, 19884. A. F. Bermant, A. F. Abramovič, Kratkiй kurs matematičeskogo analiza dlя vuzov, Nauka,Moskva,19665. Bronšeйn I. N., Semendяev K. A., Spravočnik po matematike, Nauka, Moskva, 1967 |
| **Active teaching classes** | **Lectures** 45 | **Laboratory work** 45 |
| **Teaching mode** |
| **ASSESSMENT METHODS AND CRITERIA (Max 100 points)** |
| **Pre exam duties** | **Points** | **Final exam**  | **Points** |
| Activity during lectures | 10 | Written examination |  |
| Practical teaching |  | Oral examination | 40 |
| Teaching colloquia | 2x25 |  |  |
| Seminar |  |  |  |