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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  |  |
| **GENERAL INFORMATION** |
| Study program  | Undergraduate: Chemistry |
| Study Module (if applicable) |  |
| Course title | Statistical Data Analysis |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | second |
| Number of ECTS allocated | 3 |
| Name of lecturer/lecturers | Violeta Mitić |
| Teaching mode |  [x] Lectures [x] Group tutorials [x]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Learning objectives for this course will focus on developing a fundamental understanding of the following topics as they relate to the theory and practice of statistical analysis. Through participation in course activities, each student should expect to develop confidence in the use of basic statistical methods, to enhance ability to extract meaningful information from data sets, to improve decision-making abilities and to learn new ways to look at data |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Methods for expression of analytical data. Approximate numbers and significant figuresThe grouping, sorting, summarizing and displaying data.The types of error: random and systematic error, absolute error, relative error, detection and elimination of errors.Measures of central tendencyMeasures of VariabilityNormal probability distributions. Statistical software Testing statistical hypotheses Type I and type II errors. Statistical significanceStatistical parametric tests: Dixon Q-Test, Grubbs test, F-test, t-test |
| **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** | **5** | **Written examination** | **15** |
| **Practical teaching** | **25** | **Oral examination** | **15** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |