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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Science and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Chemistry** |
| Study Module (if applicable) |  |
| Course title | Principles of quality control in analytical laboratory |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | third |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Ivana Rašić Mišić |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [x]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Enabling students to understand principles and characteristics of analytical methods, as well as to do quality control of data obtained in analytical laboratory. Students will acquire necessary knowledge for working in laboratories that conduct quality control of data obtained for different samples.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Analytical system. Analytical signal. Analytical result and analytical information. Errors in analytical systems.****System quality. Managing system quality. Quality assurance in analytical laboratory. Quality control. Validation of samples and sampling. Assurance of sampling quality. Sample size. Processing of experimental kinetic results. Calibration procedures. Interferences. Calibration diagrams. Standard addition method. Internal standard method. Characteristic of analytical methods. Development and validation of analytical methods. Selectivity and specificity of method. Sensitivity, limit of detection, limit of quantification. Working range. Accuracy and precision. Data reproducibility.**  |
| **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** |  |
| **Practical teaching** | **25** | **Oral examination** | **40** |
| **Teaching colloquia** | **30** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |