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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Sciences and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Physics** |
| Study Module (if applicable) |  |
| Course title | Laboratory practicum 3  |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | second |
| Number of ECTS allocated |  |
| Name of lecturer/lecturers |  |
| Teaching mode |  [ ] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| This course is based on practical work in laboratory. Students will do measurements of different quantities (current, voltage, resistance, etc.). They will improve their skills and abilities in using of the electrical measuring methods and instruments. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Analysis and measurement of simple and complex DC circuits. Verification of Ohm's Law in DC and AC circuits. Verifications of Kirchhoff's rules. Measuring a resistance by a Wheatstone bridge. Determination of a temperature coefficient of resistance of metals. Determination of the capacity of the condenser. Faraday's laws of electrolysis, determination of the electrochemical equivalent of copper. Thermogenic, capacitive and inductive resistance in the AC circuit. Determination of the phase difference between current and voltage by an oscilloscope. Determination of the frequency of alternating current – Lissajous figures. |
| **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** | **10** | **Written examination** |  |
| **Practical teaching** | **40** | **Oral examination** | **40** |
| **Teaching colloquia** | **10** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |