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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of technology |
| **GENERAL INFORMATION** |
| Study program  | **Food technology and biotechnology, Chemical technologies, Textile technologies** |
| Study Module (if applicable) |  |
| Course title | Electrical engineering |
| Level of study | [x] Bachelor [ ]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | I |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Sreten Stojanovic |
| Teaching mode |  [x] Lectures [x] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| *Getting to know students with basic knowledge in the field of electrical engineering and production and transfer electrical energy.* *Developing the necessary skills of students for successful application of acquired knowledge in electrical engineering in order to solve the various technical problems.* |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Electrostatics. Coulomb's law. Potential. Gauss's law. Conductors. Capacitors. Dielectrics. Energy. D.C. fields and circuits. Current field. Electric generators. Kirchhoff's current laws. Circuit solution using Kirchhoff's laws. Mesh analysis. Electric networks with capacitors. Stationary magnetic field. Biot-Savart law. Magnetic flux. Ampere's law. Ferromagnetic materials. Time-varying electromagnetic field. Faraday's law. Inductances. Energy. A.C. circuits. Phasors and complex representatives. Methods for circuit analysis. Three-phase circuits. Production and transfer electrical energy.** |
| **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** | **15** | **Oral examination** | **30** |
| **Teaching colloquia** | **50** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |