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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 | | | | Bachelor  Master’s  Doctoral | | |
| Type of course | | | | Obligatory  Elective | | |
| Semester | | | | Autumn Spring | | |
| Year of study | | | | I | | |
| Number of ECTS allocated | | | | 5 | | |
| Name of lecturer/lecturers | | | | Sreten Stojanovic | | |
| Teaching mode | | | | Lectures Group tutorials  Individual tutorials  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** | | | | | | |
| 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** | | | | | | |