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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Electrical Engineering |
| **GENERAL INFORMATION** |
| Study program  | Telecommunications |
| Study Module (if applicable) | Radiocommunication engineering and technologies |
| Course title | Design of RF and Microwave Devices |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [x]  Obligatory [ ]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 5 |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Maleš-Ilić P. Nataša, Pronić-Rančić R. Olivera, Marković V. Vera |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Enabling students to work in a modern software packages for design, analysis and optimization of microwave circuits. Knowledge of the procedures for design of RF and microwave passive and active circuits. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Modern approach to circuit design (CAD techniques). Modeling and simulation. Optimization of the design process. Design of passive microwave devices. X parameters. Design of active microwave devices. Design of front-end of microwave receivers. Software packages for the analysis, design and optimization of RF and microwave circuits. Auditory exercises. Solving of problems using microwave circuit simulators. |
| **LANGUAGE OF INSTRUCTION** |
| [ ] Serbian (complete course) [x]  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** | **25** |
| **Practical teaching** | **45** | **Oral examination** | **25** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |