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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | Electrical Engineering and Computing |
| Study Module (if applicable) | Applied Physics |
| Course title | Medical Physics |
| Level of study | ☐Bachelor ☐ Master’s x Doctoral |
| Type of course | ☐ Obligatory x Elective |
| Semester  | x Autumn ☐Spring |
| Year of study  | The second |
| Number of ECTS allocated | 10 |
| Name of lecturer/lecturers | Ristić S. Goran |
| Teaching mode | xLectures ☐Group tutorials x Individual tutorials☐Laboratory work x Project work ☐ Seminar☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| To introduce the students to the application of ionizing and non-ionizing radiation in medicine, as well as the working principle of the gadges in medical diagnostics and therapy. Mastery of theoretical knowledge related to the use of ionizing and non-ionizing radiation in diagnosis and therapy, as well as appliances and devices used for this purpose |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Application of ionizing and non-ionizing radiation in diagnosis and therapy. X-ray diagnostic radiology. Nuclear magnetic resonance imaging. The application of radioisotopes in nuclear medicine. Positron emission tomography. Radiotherapy. Application of laser and radio frequency radiation, as well as ultrasound in medicine |
| **LANGUAGE OF INSTRUCTION** |
| xSerbian (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** |  | **Written examination** |  |
| **Practical teaching** |  | **Oral examination** | **50** |
| **Teaching colloquia** | **50** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |