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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Science and Mathematics |
| **GENERAL INFORMATION** |
| **Study program**  | **Physics** |
| Study Module (if applicable) | Experimental and Applied Physics, Theoretical Physics |
| Course title | Optoelectronics Devices Physics |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | 2 |
| Number of ECTS allocated | 6 |
| Name of lecturer/lecturers | Zoran Pavlović |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [x]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The course aims to introduce students to the concepts of the optoelectronic devices physics.Acquired knowledge is necessary for further scientific and professional work, research work and application of optoelectronic devices. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Overview of wave’s optics and interaction of EM wave with solid state. Basic physics optoelectronic devices. Photoresistors. Photodiodes and solar cells. Photo MOS capacitors, CCD devices. LED devices and semiconductors lasers. Fiber optics components. Plasma displays, LED displays and LCD-TFT displays. Basic the holography. Modern technology of the optoelectronic devices. Application of optoelectronic devices of microelectronics and electronics systems.  |
| **LANGUAGE OF INSTRUCTION** |
| [x] Serbian (complete course) [ ]  English (complete course) [ ]  Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)[x] 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** | **20** |
| **Practical teaching** | **15** | **Oral examination** | **20** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |