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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  |  Faculty of Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | Electronics and Microsystems |
| Study Module (if applicable) | Electronics |
| Course title | Design of Electronic Equipment |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [ ]  Autumn [x] Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 5 |
| Name of lecturer/lecturers | Jevtić S. Milun |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [x] Laboratory work [ ]  Project work [ ]  Seminar [ ] Distance learning [ ]  Blended learning [ ]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Adoption and systematization of knowledge related to the design of secure electronic devices. Gaining competence in designing of reliable electronic devices using hardware and software tools. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Principles of systematic design of modern computer-based devices. Methodology for hardware/software codesign. Object-oriented approach in designing microcomputer systems. Development tools and designing equipment. Operating systems for electronic devices. Programmability of electronic devices. Designing reliable electronic devices. Designing failure detection and fault tolerant systems. Redundancy in hardware, software, data and time. Techniques for failure testing and diagnostics. Built-in on-line selftesting. Designing devices for work in hazardous conditions - self-secured devices. Particularities of designing highly reliable real-time systems with rigid restrictions. Electromagnetic compatibility of electronic devices. |
| **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** | **0** |
| **Practical teaching** | **50** | **Oral examination** | **25** |
| **Teaching colloquia** | **20** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |