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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Faculty of Science and Mathematics |
| **GENERAL INFORMATION** |
| Study program  | **Computer Science** |
| Study Module (if applicable) |  |
| Course title | Software design |
| Level of study | ☐Bachelor ☒ Master’s ☐ Doctoral |
| Type of course | ☒ Obligatory ☐ Elective |
| Semester  | ☒ Autumn ☐Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 7 |
| Name of lecturer/lecturers | Rancic Svetozar |
| Teaching mode |  ☒Lectures ☒Group tutorials ☐ Individual tutorials ☐Laboratory work ☐ Project work ☐ Seminar ☐Distance learning ☐ Blended learning ☐ Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Adopting techniques of implementation project decisions with consistent and proper respect for the process of teamwork and coordination. It also deals with agile methodologies, unit testing and refactoring. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| **Detailed software design, thorough study of design and construction software. Continuation and detailed study and application of design patterns lower level. Introduction to formal approaches to design. Analysis of design based on quality criteria and to improve the efficiency, reliability and ease of maintenance. Version control systems, the need for version control systems, knowledge of use. Extreme programming (EP) software development methodology suitable for small projects with the user in mind. The life cycle of software in the EP and the role that it has a buyer and supplier. Defining the business value of the customer. Cooperation between the customer and the programmers when defining the system. Apportioning software delivery and iteration. Development within the iteration. Maintenance within the EP.**  |
| **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** | **0** | **Written examination** | **25** |
| **Practical teaching** | **25** | **Oral examination** | **25** |
| **Teaching colloquia** | **25** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |