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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Pedagogical Faculty in Vranje | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Technical Education and Informatics | | |
| Study Module (if applicable) | | | | / | | |
| Course title | | | | Programming | | |
| Level of study | | | | ☐Bachelor ☒ Master’s ☐ Doctoral | | |
| Type of course | | | | ☒ Obligatory ☐ Elective | | |
| Semester | | | | ☒ Autumn ☐Spring | | |
| Year of study | | | | Third | | |
| Number of ECTS allocated | | | | 7 | | |
| Name of lecturer/lecturers | | | | Dragan Janković | | |
| Teaching mode | | | | ☒Lectures ☐Group tutorials ☐ Individual tutorials  ☒Laboratory work ☒ Project work ☒ Seminar  ☐Distance learning ☐ Blended learning ☐ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| Algorithmic problem solving using the paradigm of structured programming with the use of the C programming language, introduction to the basic data types, basic control structures, functions, recursive programming, as well as basic data structures and algorithms for solving basic problems in programming. | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Computing and programming, algorithms - basic ways of shifting algorithms, management structures, types and structures, basic data types, Structured data types - linear and non-linear, basic elements of the programming language C, Alphabet C-a and program structure, data types in C, Constants, Operators and operator precedence, C program structure and function of the main, standard input and output control program flow, Fields - arrays and matrices, Functions, Transfer function parameters, the parameters of main functions, recursive functions, derived data types: pointers, structure, nested structures, unions, dynamic memory allocation and dynamic data structures, Processor directive, Strings, Working with files, complexity of algorithms. | | | | | | |
| **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** | **10** | | **Written examination** | | | **40** |
| **Practical teaching** | **10** | | **Oral examination** | | | **40** |
| **Teaching colloquia** | **40** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |