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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty**  | Electronic Engineering |
| **GENERAL INFORMATION** |
| Study program  | Computing and Informatics |
| Study Module (if applicable) | Information systems |
| Course title | Semantic Web |
| Level of study | [ ] Bachelor [x]  Master’s [ ]  Doctoral |
| Type of course | [ ]  Obligatory [x]  Elective |
| Semester  |  [x]  Autumn [ ] Spring |
| Year of study  | 1 |
| Number of ECTS allocated | 4 |
| Name of lecturer/lecturers | Tošić B. Milorad |
| Teaching mode |  [x] Lectures [ ] Group tutorials [ ]  Individual tutorials [ ] Laboratory work [x]  Project work [ ]  Seminar [x] Distance learning [x]  Blended learning [x]  Other |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| The acquisition of basic theoretical knowledge and possible areas of application for the Semantic Web.Conquering the basic programming techniques for developing semantic web applications in the currentstage of technology development. Building creative attitudes towards the possible directions for furtherdevelopment of technology in this area.Developed and adopted a systematic approach to Semantic Web applications in current areas ofapplication. Conquered the theoretical knowledge of the semantics of the information technology.Students know what they are and are able to effectively work with ontologies, and apply them to theattraction applications currently on the web. |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Introduction: structure, syntax and semantics; need for semantics on the Web. Meta-programming:Metadata, XML Schema, XSLT, RDF. Semantics: The semantics and knowledge, Ontologies, Logic;conclusion; modeling domain; context. Distributed Knowledge: Classification; protocols based onknowledge; Technologies: Tools for working with ontologies; software (API) for working with ontologies,OWL, Methodologies: Methodologies for ontology engineering methodologies of the introduction ofknowledge management, semantic systems development methodology; semantic systems: semanticWeb Services and semantic Web Portals, Semantic Wiki, Semantic Multi-agent systems, SemanticWeb browsers, ... Applications: Web Search, document management systems, bioinformatics,information retrieval, information aggregation, ... |
| **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** | **20** | **Written examination** |  |
| **Practical teaching** | **20** | **Oral examination** | **20** |
| **Teaching colloquia** | **40** | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |