Study program: Information Technologies and Systems	
Course title: Intelligent Information Systems	
Professor/assistant: PhD Danko Milašinović, PhD Olga Miljković	
Type of course: Compulsory	
ECTS credits: 6	
Prerequisites: none	

Aims of the course:
Introducing students to the artificial intelligence techniques that contribute to the improvement of business information systems. To show the way of expansion of classic understanding of business information systems, the concepts of automatic data collection and analysis.

Learning outcomes:
After passing the course, the student will be able to apply different artificial intelligence technologies in development of information systems.

Syllabus:
Theoretical part:
Introduction. Intelligence in information systems. Typical domains in which intelligent information systems (IIS) are applied. Significant classes of IIS. Web mining. Concepts and processes. Characteristics of the data source on the web. Data preprocessing. Detection of data pattern on the web. Interpretation and evaluation of patterns. Characteristic web mining tasks. Selected web mining algorithms. Web mining tools. Text mining. Metadata mining. Intelligent information systems and intelligent agents. The concept of intelligent agents. Design of intelligent agents. Tools for intelligent agents development. Multi-agent systems. Mobile agents. Intelligent agents and business applications. Intelligent information systems and semantic Web. Disadvantages of today's web from the aspect of IIS. Ontological engineering. XML technology for the realization of semantic web. Annotation of web resources. Intelligent Web Services.

Practical part:
Students work on their projects under the supervision of teachers.

Literature:
1. Devedžić V. 2004. Tehnologije inteligentnog Sistema, FON
2. Ranković V. 2008. Inteligentno upravljanje, Mašinski fakultet u Kragujevcu
3. Andrejević M. 2004. Neuronske mreže u modelovanju, Zadužbina Andrejević
4. Soldić-Aleksić J. 2004. Inteligentni sistemi za poslovno odlučivanje, CID
5. Milićević V. 2012. Razvoj IS baziranih na pristupu poslovnih pravila- skripte
6. dosc.jboss.org/drols

Total number of active classes: 5	**Lectures:** 3	**Practical classes:** 2

Teaching methods:
Lectures and auditory exercises.

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Grading system (maximum 100 points)
grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.

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Pre-exam obligations:	Points:	Final exam:	Points:
Activity during lectures	5	Oral exam	50
Practical training	5		
Written test(s)	30		
Term papers	10		