

## Specification for the book of courses

<b>Study program</b>		Electrical Engineering and Computer Science		
<b>Module</b>		Computing and Informatics		
<b>Type and level of studies</b>		Undergraduate Academic Studies		
<b>The name of the course</b>		Information Retrieval		
<b>Lecturer (for lectures)</b>		Stojković R. Suzana		
<b>Lecturer/associate (for exercises)</b>		Marković M. Ivica		
<b>Lecturer/associate (for OFE)</b>		Marković M. Ivica		
<b>Number of ECTS</b>	5	<b>Course status (obligatory/elective)</b>	Elective	
<b>Prerequisites</b>				
<b>Course objectives</b>	The goal of this course is to introduce students to information retrieval systems (their architecture, structures of the data used for the representation of documents and queries, and algorithms for manipulating the structures)			
<b>Course outcomes</b>	After completing this course, students should acquire theoretical knowledge of the principles of the work of the information retrieval systems and to be able to design and develop Web retrieval system and system for searching other types of unstructured data.			
<b>Course outline</b>				
<b>Theoretical teaching</b>	Information retrieval definition. The basic functions of the information retrieval system. The components of the information retrieval system. Inverted index as the main data structure for representing documents in information retrieval systems. Algorithms for inverted index generation. Boolean and vector retrieval model. Evaluation of information retrieval systems. Basics of web search. Web crawling. Link analysis, page rank and HITs algorithms.			
<b>Practical teaching (exercises, OFE, study and research)</b>	Development of information retrieval systems by using open source libraries.			
<b>Textbooks/references</b>				
1	C. D. Manning, P. Raghavan, H. Schütze: An Introduction to Information Retrieval, Cambridge University Press, Cambridge, England, 2009.			
2	ppt presentations from lectures			
3				
4				
5				
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
2	2	1	0	0
<b>Teaching methods</b>	Lectures, auditorial exercises, lab. practice, student seminars (presentation and discussion of students' work)			
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>	<b>Points</b>	<b>Final exam</b>	<b>Points</b>	
<b>Activity during lectures</b>		<b>Written exam</b>		
<b>Exercises</b>	20	<b>Oral exam</b>	40	
<b>Colloquia</b>	40			
<b>Projects</b>				