

Specification for the book of courses

Study program		Computing and Informatics		
Module		Data Science		
Type and level of studies		Master studies		
The name of the course		Web Mining		
Lecturer (for lectures)		Stojković R. Suzana, Bogdanović D. Miloš		
Lecturer/associate (for exercises)		Stojković R. Suzana		
Lecturer/associate (for OFE)				
Number of ECTS		4	Course status (obligatory/elective)	Obligatory
Prerequisites				
Course objectives		During this course, students will acquire specific knowledge regarding the process of analyzing Web documents and unstructured data. They will also be introduced to the specific possibilities of using Web mining technologies.		
Course outcomes		Students will acquire theoretical and practical knowledge in the field of analyzing the content of documents, classification and clustering of Web documents. Also, they will get familiar with basic techniques and tools for analyzing the structure and access methods of the Web.		
Course outline				
Theoretical teaching		Introduction to Web mining. Web Document specifics. Techniques for analyzing the content of Web documents. Identify the document theme and document term rank. Classification and clustering of documents. Analysis of Web structure, ranking documents by relevance. Website ranking improvement techniques. Web access analysis. Detection of Web site user behavior patterns. Recommendation systems. Web visualization.		
Practical teaching (exercises, OFE, study and research)		Introduction to basic web mining tools and their usage. Document Classification Tools, Log Files Structure Analysis and Log Analysis Tools.		
Textbooks/references				
	1	Bing Liu, Web Data Mining-Exploring Hyperlinks, Contents, and Usage Data, Second Edition, July 2011, Springer		
	2	Wouter de Nooy, Andrej Mrvar, Vladimir Batagelj, Exploratory Social Network Analysis with Pajek, Cambridge University Press, 2011		
	3	Zdravko Markov, Daniel Larose, Data mining the Web: Uncovering patterns in Web content, structure and usage		
	4	Materials from lectures and exercises available on the course website.		
	5			
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	1	0		
Teaching methods		Lectures and exercises using presentations and interactive work on a computer. Research and implementation projects.		
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures			Written exam	
Exercises			Oral exam	40
Colloquia				
Projects		60		