

DEPARTMENT OF BUSINESS AND ECONOMICS
COURSE SYLLABUS

Course Details				
Code	Academic Year			Semester
BE048	2021-2022			
Title	T	A	L	ECTS
Text and Web Mining	3	1	0	10
Language	English			
Level	Master		Doctorate	X
Department / Program	PhD in Business and Economics			
Forms of Teaching and Learning	Face-to-Face			
Course Type	Compulsory		Elective	X
Objectives	After successfully completing this course, participants will be able to identify techniques for processing unstructured data, apply different statistical text-processing methods, perform text classification & clustering, collect data from the web and prepare it for analysis, and will be ready to extend their knowledge to other advanced topics.			
Content	Web Structure Mining, Content Mining, Usage Mining.			
Prerequisites				
Coordinator				
Lecturer(s)				
Assistant(s)				
Work Placement				
Recommended or Required Reading				
Books / Lecture Notes	Zdravko Markov and Daniel T. Larose. Data Mining the Web: Uncovering Patterns in Web Content, Structure, and Usage, Wiley, 2007, ISBN: 978-0-471-66655-4.			
Other Sources	Ian H. Witten and Eibe Frank. Data Mining: Practical Machine Learning Tools and Techniques (Second Edition), Morgan Kaufmann, 2005, ISBN: 0-12-088407-0.			
Additional Course Material				
Documents	Lecture Notes and Books			
Assignments	Assignments			
Exams	Midterm and Final			
Course Composition				
Social Sciences				%100
Educational Sciences				%
Natural Sciences				%

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Health Sciences			%
Expert Knowledge			%
Assessment			
Activity	Count		Percentage (%)
Midterm Exam			30
Quiz			
Assignments			30
Attendance			
Recitations			
Projects			
Final Exam			40
Total			100
ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	2	28
Assignments	12	5	60
Presentation / Seminar Preparation			
Midterm Exam	1	60	60
Recitations			
Laboratory			
Projects			
Final Exam	1	90	90
Total Work Load			280
ECTS Points (Total Work Load / 28)			10
Course Learning Outcomes			
1	Introduce students to the basic concepts and techniques of Information Retrieval, Web Search, Data Mining, and Machine Learning for extracting knowledge from the web.		
2	Develop skills of using recent data mining software for solving practical problems of Web Mining.		
3	Gain experience of doing independent study and research.		
4			
5			
Weekly Content			
1	Information Retrieval and Web Search		
2	Hyperlink-Based Ranking		

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3	Clustering
4	Evaluating Clustering
5	Classification
6	Web Usage Mining
7	Preprocessing for Web Usage Mining
8	Exploratory Data Analysis
9	Midterm
10	Modeling: Clustering, Association and Classification
11	Affinity Analysis
12	Priori Algorithm
13	Regression Trees
14	The C4.5 Algorithm
15	Overview

Contribution of Learning Outcomes to Program Objectives (1-5)

CLO	P1	P2	P3
1	5	1	5
2	5	1	5
3	5	1	5
4			
5			

Contribution Level 1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

Compiled by:

Date of Compilation:

04/05/2021