



Меѓународен Универзитет Визион - International Vision University
 Universiteti Ndërkombëtar Vizion - Uluslararası Vizyon Üniversitesi

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SYLLABUS

COURSE NAME	COURSE CODE	SEMESTER	COURSE LOAD	ECTS
DATA MINING	CEN-3007	7	150	5

Prerequisite(s)	None
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Course Language	Macedonian, Turkish, English
Course Type	Required
Course Level	First Cycle
Course Lecturer	
Course Assistants	
Classroom	
Extra-Curricular Office Hours and Location	

Course Objectives	The aim of the course is to teach Data Mining Concepts, Data Preparation Techniques, Statistical Learning Theory (Naive Bayes), Clustering Methods (K-Means, hierarchical), Decision Trees and Decision Rules, Association Rules. Recognizing and using data mining tools.
Course Learning Outcomes	Learning and applying the basic concepts of Data Mining will gain knowledge and skills.
Course Contents	Data representation, Data Mining algorithms, Classification algorithms, data mining schemes and models, using useful information from data mining. The purpose of data mining is to help explain the current situation using discovered information and applications to predict future occurrences.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Introduction to Data Mining	Related Chapters of Course Sources
2	Data Mining Concepts	Related Chapters of Course Sources
3	Data Preparation Techniques	Related Chapters of Course Sources
4	Data Reduction	Related Chapters of Course Sources
5	Statistical Methods in Classification	Related Chapters of Course Sources
6	Clustering Methods - K-Means Algorithm	Related Chapters of Course Sources
7	Midterm	Related Chapters of Course Sources
8	Clustering Methods - Hierarchical Methods	Related Chapters of Course Sources
9	Decision Trees and Rules	Related Chapters of Course Sources
10	Association Rules	Related Chapters of Course Sources
11	Artificial neural networks	Related Chapters of Course Sources
12	Project Presentations	Related Chapters of Course Sources
13	Project Presentations	Related Chapters of Course Sources
14	Project Presentations	Related Chapters of Course Sources
15	Final Exam	Related Chapters of Course Sources

ECTS / WORKLOAD TABLE

Presentation / Seminar			
Hours for off-the-classroom study (Pre-study, practice)	14	3	42
Midterm Exam	1	12	12
Final examination	1	14	14
Total Work Load			
ECTS		5	

GENERAL PRINCIPLE RELATED WITH COURSE

Dear Students,

In order to be included in the lesson, learn the lesson fully and achieve the success you deserve, you must come to each lesson prepared by reading the sections related to the subjects to be covered from the basic and supplementary textbooks. We expect you to meticulously comply with the lesson hours, not to interrupt the lessons unless it is absolutely necessary, to participate actively in the lesson, to communicate fully with your teacher and classmates, and to be active by participating in the discussions in the class. Unethical behaviors that may occur both in classes and in exams will be acted upon within the framework of the relevant regulation. Attendance will be taken at the time your teacher requests, at the beginning, middle or end of each lesson. Students who attend all classes during the semester will be given a 15-point attendance grade in addition to the exam grade.

SOURCES

COMPULSORY LITERATURE		
No	Name of the book	Author's Name, Publishing house, Publication Year
1	Veri madenciliği algoritmaları	Sanya Veleva (2011), Özey yayını
2	Veri madenciliği kavram ve algoritmaları	Gökan Silahtaroglu (2016), Papatya bilim
3	Data mining: concepts and techniques	Jiawei Han, Micheline kamber(2006), Elsevier Inc

ADDITIONAL LITERATURE		
No	Name of the book	Author's Name, Publishing house, Publication Year
1	Veri madenciliği uygulamaları ve felsefesi	İlker Köse (2018), Papatya
2	İntroduction to data mining	Pang-Ning Tanö etc. (2015), Pearson Education Limited

EVALUATION SYSTEM

Underlying the Assessment Studies	NUMBER	PERCENTAGE OF GRADE
Attendance/Participation	15	%10
Project / Event	1	%20
Mid-Term Exam	1	%35
Final Exam	1	%35
TOTAL	17	%100

ETHICAL CODE OF THE UNIVERSITY

In case students are cheating on exams or preparation the same, it is not making reference to the source to be used in studies, as for example in assignments, projects and presentation (plagiarism), in accordance with legislations by Ministry of Education and Science of the Republic of North Macedonia and International Vision University, apply relevant disciplinary rules. International Vision University students are expected never attempts in this kind of behavior.