

Syllabus

Objectives

Introduction to concepts, terminology and techniques of Data Mining
Introduction to mathematical/statistical concepts and algorithms used in data mining
Design and implementation projects for different approaches to solving data mining problems

Course Books

Introduction to Data Mining. P.-N. Tan, M. Steinbach, and V. Kumar.
Pearson education, 2nd Edition 2018 (IDM)

Mining of Massive Datasets, Jure Leskovec, Anand Rajaraman, Jeff Ullman
(MMDS) Free online edition

Supplementary Text Book Data Mining and Analysis, Online Edition [Free]
Author(s): Mohammed J. Zaki, Wagner Meira Jr

Grading

Home work: 60% Midterm: 15% Final exam:25%

The order of the lectures may change.

08/23/2018	Lecture 1	Introduction to Data Mining	IDM, Chapter 1,2,3
08/30/2018	Lecture 2	Introduction to Classification	IDM, Chapter 4
09/06/2018	Lecture 3	Classification, cont.	IDM, Chapter 4
09/13/2018	Lecture 4	Classification, cont.	IDM, Chapter 4
09/20/2018	Lecture 5	Association Rules	IDM, Chapter 6
09/27/2018	Lecture 6	Association Rules	IDM, Chapter 6
10/04/2018	Lecture 7	Hadoop, MapReduce	MMDS, Chapter 2; Tutorial
10/11/2018	Midterm		
10/18/2018	Lecture 8	Clustering, Anomaly Detection	IDM, Chapter 8 MMDS, Chapter 7
10/25/2018	Lecture 9	Recommender System	MMDS, Chapter 9; Tutorial
11/01/2018	Lecture 10	Recommender System, cont.	MMDS, Chapter 9; Tutorial
11/08/2018	Lecture 11	Finding Similar Items	MMDS, Chapter 6
11/15/2018	Lecture 12	Google PageRank, HITs	MMDS, Chapter 5; Tutorial
11/22/2018	No class	No class	
11/29/2018	Lecture 13	TBA	
12/06/2018	Final	Final exam	

Course Policies:

- Homework Assignments
 - Students are expected to complete assignments on time
 - Late assignments submitted within one week of the due date will be subject to a 20% grade penalty
 - No late assignments will be accepted beyond one week
- Examinations
 - Exams are closed book, closed notes, no calculators
 - Midterm Exam will be administered in class,
 - Final Exam will be administered in class, check the university final exam schedule
 - Any questions or discussions regarding grades should be emailed to the instructor