CS525 DATA MINING SYLLABUS

YÜCEL SAYGIN

SABANCI UNIVERSITY

Contact Info

- ysaygin@sabanciuniv.edu
- http://people.sabanciuniv.edu/~ysaygin

Course Info

- **Reference Book**: Data Mining Concepts and Techniques
- **Author**: Jiawei Han and Micheline Kamber
- **Publisher**: Morgan Kaufmann

Sabancı Üniversitesi

Course Info

- Grading:
  - Midterm : 40% (Take Home)
  - Survey Paper : 20%
  - Project : 40%

Sabancı Üniversitesi

Topics that will be covered

- Different Data Mining Techniques
    - Association Rules
    - Classification
    - Clustering
- Data Mining and Privacy Issues
- Applications of Data Mining

Sabancı
Üniversitesi

A Rough Schedule

- February, March:
  - Lectures on various data mining techniques
- Remaining weeks: Project presentations and discussions about research issues

What I will do

- Give the basics on data mining
  - broad data mining concepts
  - research issues
- Project supervision
- Give directions and advise on the projects I proposed (will be provided in the next slides)
- Coordination of the project presentations

Sabancı Üniversitesi

What I expect you to do

- I expect you to do things wrt your background and expertise.
- Students with CS background will do projects involving implementation and/or research

Sabancı
Üniversitesi

What I expect you to do

- Understand the basic data mining concepts
- Choose a specific area and recent related papers on the same topic
- Write a survey paper based on these papers.
- Conduct a project and write a final report describing what you learned or achieved in the scope of the project.

Projects

- Text Mining
- Graph Mining (Social Networks)
- Web mining
- Bioinformatics
- Privacy preserving data mining
- Data anonymization for data mining
- ….

Some references

- Choose the latest papers (2019-2020)
- Here are the main DM Conferences
    - ACM KDD Conference
    - ECMLPKDD Conference
    - IEEE ICDM Conference
- Other related conferences
    - WWW Conference (The WEB Conf)
    - ACM SIGIR

Sabancı
Üniversitesi