Syllabus

ISE311 Fall Semester 2007

Objective

This course will first feature data organization in theory and in a practical project. Various datasets will then be explored using different data mining techniques such as clustering and association analysis. The project will provide a basis for differentially exploring the usefulness of different data mining algorithms on a given dataset.

Textbook

Introduction to Data Mining, Tan, PN, Steinbach, M, Kumar, V, Addison Wesley, ISBN: 0-321-42052-7

Course Outline

Class	Chapter	Topic
9/28/07	1	Introduction to Data Mining
	2-3	About Data,
10/5/07		Exploring Data
10/12/07	-	Bayram
10/19/07	4	Classification Techniques
10/26/07	5	More Classification Techniques
11/2/07	6	Association Analysis
11/9/07	7	More Association Analysis
11/16/07	-	1. Project Presentation
11/23/07	1 – 7	Midterm
11/30/07	8	Clustering
12/7/07	9	More Clustering
12/14/07	10	Anomalies
12/21/07	1 – 10	Bayram (use for review)
12/28/07	-	2. Project Presentation
1/4/08	1 – 10	Final exam

Grading

Attendance and Participation	10%
In-Class Work and Quizzes	20%
Midterm	25%
Project	10%
Final	35%

Attendance and Participation

Participation in class is a clear necessity for successful learning. Participation includes asking and answering questions as well as giving suggestions or providing possible personal insights into certain topics. Be aware, that mere attendance does not earn you points. Also keep in mind that distractive behavior (e.g.: playing computer games, chatting …) will lead to a deduction of points.

In-Class Work

Performance will be measured by occasional unannounced quizzes, successful completion and submission of deliverables of the course project, and successful completion of in-class assignments.

Midterm

The midterm exam will test general knowledge about everything learned in the course so far. It will mostly consist of essay questions, but there may be some true/false, fill in the blanks, and some multiple choice questions as well.

Project

3-4 students form a group and are assigned one of three possible, equally difficult projects. Students apply what they learn during a lecture to their project during the following week and submit any deliverables at the beginning of the following class. At the end of the courses a working project with all possible documentation needs to be submitted. Grading will be based on the quality of the software which was produced and on the quality of the accompanying documentation.

Final

The final exam will mainly focus on the skills acquired during the development of the project. Some additional questions will target excurses taking during the lectures. It will mostly consist of essay questions, but there may be some true/false, fill in the blanks, and some multiple choice questions as well.

Office Hours

Office:	409	
Hours:	Tu.	13:30 – 15:30
	We.	9:30 – 12:30