CS 512
Machine Learning
2011-2012 Fall

Instructor:
Hakan Erdoğan, Office: FENS 1097, Telephone: +90 216 483 9607
Email: haerdogan at sabanciuniv dot edu

Teaching Assistant
None

Lecture Place and Times:
Mondays 10:40-11:30, FENS L056
Wednesdays: 10:40-12:30, FENS L065

Office Hours:
Mondays: 16:40-17:30 (email before to ensure finding me)

Textbooks:
We will use the following books in this class.
• (textbook) Introduction to Machine Learning, Ethem Alpaydin, The MIT Press, 2004, 0-262-01211-1
• (reference) Pattern Recognition and Machine Learning, Christopher M. Bishop, Springer, 2006, 0-38-731073-8

Grading (tentative):
10% Homeworks (partially read)
25% Midterm 1 (in class)
25% Midterm 2 (take home with matlab parts)
10% Final exam (multiple choice and fill in the blanks)
30% Project

Note:
We will mostly follow the textbook’s slides. For some parts, I will write some lecture notes on the board as well.

Outline (tentative):
1. Introduction
2. Probability review
3. Supervised Learning
4. Bayesian Decision Theory
5. Clustering
6. Nearest Neighbor Algorithms
7. Decision Trees
8. Neural Networks
9. Support Vector Machines
10. Model Assessment and Comparison