Instructor

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Text: T. Hastie, R. Tibshirani, and J. Friedman, The Elements of Statistical Learning (required) Section numbers in the syllabus below refer to this book.

This course will expand upon the material in Data Mining I. We will cover the material in Chapters 10-12 and 14 of the text. We will also use some supplementary material (to be posted on the web) and material from earlier chapters as needed.

Grading will be based upon projects (no more than 4) that may be coded in MATLAB, C,C++, or FORTRAN (I recommend MATLAB). One MATLAB primer will be posted on the web. My favorite MATLAB text is D.J. Higham and N.J. Higham, MATLAB Guide: Second Edition, SIAM Publications, Philadelphia, 2005.

Here is an outline of the syllabus with approximate dates. This will include times for the presentation of projects.

Course Syllabus:

- **January 17.** Introduction to the course. Go over this handout.
- **February 12–March 3.** Neural Networks. Chapter 11 Sections 5.1,5.2,5.4,5.5.
• **March 5–9, 19–30.** Support Vector Machines and Flexible Discrimi-
nants.

• **March 10–18.** Spring Break. Enjoy.

• **April 2–27.** Unsupervised Learning.

• **April 30–May 4.** Special topics as time permits, related to other
subjects of this course from sections in the book not listed above.