

# FINANCIAL DATA MINING

FSRM 588

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**Textbook.** [The Elements of Statistical Learning](#) by Hastie et al.

A pdf version of the book available for free at <http://statweb.stanford.edu/~tibs/ElemStatLearn/>.

Other readings will be assigned during class and made available on the class website (Sakai).

**Grading.** Homeworks and project.

- Six homeworks (60%)
- A group project (40%)

**Syllabus (tentative).**

- Supervised and unsupervised learning;
- Shrinkage and regularization in regression;
- Splines and kernel smoothing;
- Linear discriminant analysis, logistic regression, support vector machines and regularization in classification;
- Model assessment, model selection and cross-validation;
- Tree based methods and boosting;
- Introduction to neural networks;
- Introduction to text mining.