## January 9, 2006 www.cs.toronto.edu/~roweis/csc412/

Instructor: Prof. Sam Roweis Lectures: Mondays, Wednesdays 2:10-3:00PM First lecture January 9, last lecture April 7. Location: GB244 Tutor: Ruslan Salakhutidnov Tutorials: Fridays 2:10-3:00PM, GB244 Office hours: Wednesdays 11-12AM, LP290F website: www.cs.toronto.edu/~roweis/csc412/ email: csc412@cs.toronto.edu (please do *not* send Roweis or Salakhutidnov email about the class directly to their personal accounts)

- Marking Scheme:
  - -2 small assignments worth 10% each
  - 2 larger assignments worth 15% each
  - 1 midterm test and 1 final test worth 25% each
  - NO FINAL EXAM FOR EITHER UNDERGRADS OR GRADS

Prerequisite: CSC384 or instruction permission Load: 26L, 13T Auditing policy: instructor permission, space permitting, no resources.

• Course Description:

A senior undergraduate class on graphical models and probabilistic networks in AI. Representing uncertain knowledge using probability and other formalisms. Qualitative and quantitative specification of probability distributions using graphical models. Algorithms for inference with graphical models. Statistical approaches and algorithms for learning models from experience. Examples will be given of applications of these models in various areas of artificial intelligence.

• Computing:

CDF accounts will be created for all students. All the basic algorithms will be implemented in Matlab, but prior knowledge of Matlab is not required.

- Textbook:
  - Introduction to Probabilistic Graphical Models, Michael Jordan
  - this is a draft textbook not yet published but chapters will be provided in class