Instructor: Prof. Sam Roweis
Lectures: Mondays, Wednesdays 10:10-11:00AM
First lecture January 5, last lecture April 7.
Location: GB404/304
Tutor: Ben Marlin
Tutorials: Fridays 10:10-11:00AM, TBA
Office hours: Wednesdays 11-12AM, LP290F
website: www.cs.toronto.edu/~roweis/csc412/
email: csc412@cs.toronto.edu
(please do not send Roweis or Marlin 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 and either CSC411 or CSC2515 but instructor permission can waive these;
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