**BTRY 6790 [CS 6782], Probabilistic Graphical Models (2010)**

**Course Summary**
- Lectures: Tues/Thurs, 11:40–12:55, Caldwell 250
- Recitations: Thurs, 2:55–4:10, Ives 111
- Credit Hours: 4 (S/U or letter)
- Instructor: Adam Siepel, 102E Weill (acs4@cornell.edu)
- TA: Andre Luis Martins, 102 Weill (alm253@cornell.edu)
- Office Hours: Tues, 4:00–5:00
- Course Web Page: http://compgen.bscb.cornell.edu/btry6790

**Prerequisites**
Required prerequisites are a course in probability theory (BTRY 4080 or equivalent) and a course in intermediate programming/data structures (CS 2110 or equivalent). A course in mathematical statistics (BTRY 4090 or equivalent) is recommended but not required.

**Textbooks**
The primary textbook (available at the campus store) is:

Supplementary readings will be provided from:

In addition, students may find it useful to consult introductory books on probability and statistics. For example:

**Grading**
Grades will be based on five homework assignments, a class project, and class participation, broken down as follows:
- Homeworks: 13% × 5 = 65%
- Project: 30%
- Participation: 5%

The homeworks will be fairly challenging and will take some time. Please start early on them and make use of recitations and office hours as needed. Assignments will be given out approximately every other week and will be due two weeks later. The homeworks will taper off near the end of the semester so that you can focus on your projects.

The project is an opportunity to apply some of the new concepts and skills you have learned to a real research question. Projects should involve original research, and except in rare cases (e.g., a challenging theoretical project) should involve some programming and some analysis of real data. A written project report will be due at the end of the semester (during finals week). Try to start thinking about the project early, even if it takes until late in the semester for your ideas to “gel.” A list of possible project ideas will be posted on the class website soon after Fall Break. You will be asked to submit a brief project proposal in early November.

Note that 5% of your grade is for class participation. This is to encourage you to come to class prepared, do your best to follow the lectures, keep up with the readings, ask good questions, and so on—in short, to be an active, inquisitive learner. This will make the course more rewarding for all involved.

**Collaboration**
Students are free to discuss homework problems with one another, but each student must turn in his or her own work and must acknowledge all outside sources and collaborators. It is of course in your interest to understand thoroughly what you turn in for homework. Each student is responsible for an individual class project. Team projects are not allowed.