**CSC375F Enriched Algorithm Design and Analysis**
**Instructor: A. Borodin (SF2303B); TA: TBA**
**Lectures and tutorials are in BA3000**

CSC375 is our (enriched version) 3rd year undergraduate course in algorithm design and analysis. This is a standard and required course in most CSC programs throughout the world. Following most common texts for this course, our course organization emphasizes various algorithmic paradigms such as greedy algorithms, dynamic programming, local search, network flows + some more advanced or specialized topics such as linear programming and IP/LP rounding, LP duality, randomized algorithms, backtracking, streaming algorithms, mechanism design. These techniques will be applied to a wide variety of (well motivated) discrete computational problems with a focus on combinatorial optimization.

Course text: 'Algorithm Design " by Jon Kleinberg and Eva Tardos but you can also use CLRS + the KT lecture notes found on the web.

The course timetable provides for 3 contact hours/week. Usually, lectures will be given on M,W at 3 and the tutorial on F3. Sometimes I may have to switch and lecture on a Friday and indeed as the term progresses we may substitute lectures for some tutorials. Note also that due to the scheduled University closures on Monday, October 11 and Monday, November 8, there will be a makeup class on Wednesday, December 9.

The grading scheme will be based on 3 problem sets (5% each), each of which will be immediately followed by a term test (15% each), and a final exam (40%). As soon as an assignment is due (usually on a Wednesday) and collected, we will discuss the solutions in class and a term test will follow (usually on Friday). Therefore, no late assignments will be accepted. See the course web page (www.cs.toronto.edu/~bor/375f10) for the dates of all problem sets and tests. My standard policy regarding the grading of assignments and tests is what I call "the 20% rule":

- You will receive 1/5 points for any (non bonus) question/subquestion for which you say "I do not know how to answer this question". You will receive .5/5 points if you just leave the question blank.

Advice regarding assignments: Do NOT spend an excessive amount of time on any question and especially not on a bonus question. If you wish to spend "free time" thinking about (say) bonus questions that is fine but you should not sacrifice time needed for other courses. My belief is that no course should require more than 10-12 hours per week including all class times and time for study and assignments.

Email Policy: I try to read emails regularly but I do NOT promise to reply to all emails. In particular, some questions suggest interesting issues and/or require a technical answer and I will often respond to such questions in class so that everyone can benefit. **I welcome questions and comments at all times and especially in class. If you are confused, there is a good chance others are confused also.**

Office hours (SF 2303B): To be announced. Beyond any posted office hours, students are always welcome to make appointments and/or drop by to see if I am available. In general, **I prefer communicating with people in person rather than via email**.