# CSC 2410F - Introduction to Graph Theory - 2002

**Lecturer:** Derek Corneil, SF 3301B, 416-978-8954, dgc@cs.utoronto.ca

**Lectures:** Monday, Wednesday 11:10 - 12:00, Thursday 10:10 - 11:00
in RW 142

**Tutor:** Lap Chi Lau, chi@cs.utoronto.ca
Note that tutorials will be held during selected lecture hours.

**Marking Scheme:**
Assignments and class participation: 50%
Individual projects or exam: 50%

Note that the decision about a project or exam will depend on the number of students who take the course for credit.

The following scheme will be used for marking the assignments:

**A range:** Special elegance or novel proof or very fast algorithm.

**B range:** Standard correct proof or algorithm.

**C range and below:** Difficulty or error in proof or algorithm, or proof or algorithm from a text or paper.

**Text:** Douglas West: Introduction to Graph Theory, Ed. 2, Prentice Hall, 2001. If you have Ed. 1, make sure that you have access to a copy of Ed. 2 for some topics.

**Approximate Course Outline:** (number of lecture hours)

| **Topic** | **No.** |
|---|---|
| Overview | 1 |
| Definitions and Background | 1 |
| Trees, Matroids and the Greedy Algorithm | 4 |
| Search Techniques, Distances and Connectivity | 5 |
| Traversability | 2 |
| Colouring and the Probabilistic Method | 3 |
| Matching and Network Flows | 4 |
| Planarity | 2 |
| Other topics (perfect graphs, heuristics etc.) | 7 |
| Tutorials | 6 |