COMP 251: Data Structures and Algorithms

Fall 2011, TR 02:35PM-03:55PM, ENGTR 0100

Course Description: Design and analysis of algorithms. Complexity of algorithms. Data structures. Introduction to graph algorithms and their analysis.

Instructor: Andie Sigler (andrea.sigler@mail.mcgill.ca) Office hours: by appointment (email me)

TAs:  
  james.wagner@mail.mcgill.ca; Office hours: Thur. and Fri., 9:30-11am (or by appointment), TR3140  
  raphael.mannadiar@mail.mcgill.ca; Office hours: TBA  
  nakisa.mohammadifard@mail.mcgill.ca; Office hours: TBA  
  tarek.aljabban@mail.mcgill.ca; Office hours: TBA

For homework questions please use the WebCT discussion board or contact the TAs

Grading:  
4 homework assignments: 40%  
Midterm (October 25, in class): 10%  
Final: 50%

Late Homework: 10% per day will be deducted.

Required Textbook:  
Jon Kleinberg and Eva Tardos  
Algorithm Design  
Addison-Wesley, 2006.

Another good book:  
Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, and Clifford Stein  
Introduction to Algorithms, 3/e

Topics include:  
Data structures (heaps, search trees, hash tables, etc.)  
Graph algorithms  
Divide and conquer algorithms  
Greedy algorithms  
Dynamic programming  
Network flow

Obligatory reminder: McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures. (See http://www.mcgill.ca/integrity for more information.)