

Computer Science 2711 – Winter 2008, MUN
Introduction to Algorithms and Data Structures

Basic course info:

Instructor: Antonina Kolokolova.

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Lectures: Mon/Wed/Fri EN 1051

Instructor office hours: TBA.

Labs: Thur 9:00-12:00 in CS 1019

Course prerequisite: CS 2710

Course Web Site: <http://www.cs.mun.ca/~kol/courses/2711-w08>

All announcements will be posted on the website, as well as answers to frequently asked questions, assignments, solutions and so on. Please check it regularly.

Textbook : *Data Structures and Algorithms in Java (4th Edition)* by Michael T. Goodrich and Roberto Tamassia, 2006.

Marking scheme (tentative!):

Assignments: $6 \times 4\% = 24\%$, quizzes (in labs): $9 \times 2\% = 18\%$, midterm: 18%, final exam: 40%.

Course Contents:

- Analysis tools - pseudocode, math analysis, asymptotic notation and analysis
- Recursion - recursive methods and analysis
- Stacks, queues, trees, hash tables, graphs
- Algorithmic strategies - brute-force algorithms, greedy algorithms, divide-and-conquer, backtracking, heuristics, pattern matching and text processing
- Fundamental computing algorithms - sorting, searching, graph traversing,