

COMP 362, Winter 2017

Course Information:

Session: Winter 2017 Time: Tuesday-Thursday 11:35 - 12:55,
Room: ENGTR 0070 Web: <http://www.cs.mcgill.ca/~hatami/comp362-W2017>

Instructor:

Instructor: Hamed Hatami Email: hatami@cs.mcgill.ca
Office: McConnell 308 Phone: 1 (514) 398-7071
Office Hours: Tuesday 1:30-2:30 pm (also by appointment)

Teaching Assistants: Edward Smith

Evaluation: Homeworks 20%, Midterms 20%, Final 60% or Homeworks 20%, Midterm 10%, Final 70% if this leads to a better grade.

1 Course Description

This course is an undergraduate course on advanced algorithmic techniques and applications. Topics include Network Flows, Linear programming, Complexity and NP-completeness, Approximation Algorithms, Randomized Algorithms, and Online Algorithms. Since this is an honours course, we will cover some advanced topics such as semi-definite programming, Clustering, spectral methods, Hashing, fast matrix multiplication.

This is a rigorous course with an emphasis on mathematical proofs rather than implementations. The prerequisites are Comp 251 and one of Math 240/Math 235/Math 363. Restrictions: Not open to students who have taken or are taking COMP 360.

2 Textbook

The textbook of the course is

Jon Kleinberg and Eva Tardos, Algorithm Design, 2006

3 Prerequisite:

Comp 251 and one of Math 240/Math 235/Math 363.

4 Assignments

There will be 5 assignments each worth 4% towards your overall grade. The due dates are going to be announced, and they are restrict.

5 Midterm

There will be one in class midterm.

6 Academic Integrity

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offenses under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/integrity> for more information). Most importantly, work submitted for this course must represent your own efforts. Copying assignments or tests from any source, completely or partially, allowing others to copy your work, will not be tolerated.

7 Submission of written work in French

In accord [sic] with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.