COMP251: Algorithms & Data Structures

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About Me

• Jérôme Waldispühl
• Associate Professor of Computer Science
• I am conducting research in Bioinformatics
• How to reach me?
  o Office hours (Tues/Thu 1-2pm)
  o By appointment (Send me an email to schedule a meeting)
  o Email: jeromew@cs.mcgill.ca (Use “COMP251” in title)
Where to get announcements & updates?

Official channel:


Other channels (less reliable):

• Online forum: [https://cs251qanda.cs.mcgill.ca](https://cs251qanda.cs.mcgill.ca)
• Dashboard of MyCourses
• Follow hashtag #McGillCOMP251 on Twitter
• Class are recorded and available **online**
Online Forum

URL: [https://cs251qanda.cs.mcgill.ca](https://cs251qanda.cs.mcgill.ca)

- Stack exchange style:
  - Ask or answer questions from peers
  - Vote for the most helpful answers/questions
  - Earn reputation
- Forum managed by a TA
- Open 24/7
Teaching Assistants

- Alexander Butyaev (alexander.butyaev@mail.mcgill.ca)
- Carlos Gonzales Oliver (carlos.gonzalez.oliver@gmail.com)
- Antoine Soulé (antoine.soule@mail.mcgill.ca)
- Roman Sarazzin-Gendron (roman.sarrazingendron@mail.mcgill.ca)
- ???

TA’s Office hours will be announced next week on the course web page.
Evaluation

• 40% for 5 assignments
• 15% for the midterm
• 45% for the final exam

... And:

• Bonus (1% of final grade) for the best participant(s) to the online forum.
Schedule

- Classes start... Today
- Reading week: February 27 – March 5
- Midterm exam: March 7
- Classes end on April 11 (included).
- Final exam: TBD
Outline

• Jan 10: Review
• Jan 12 – Jan 26: Data Structures (Mostly Trees)
• Jan 31: Algorithm design (Greedy Algorithms)
• Feb 2 – Feb 21: Graph Algorithms
• Feb 23 – Mar 14: Algorithm design (Divide-and-Conquer)
• Mar 16 – Mar 21: Algorithm design (Dynamic Programming)
• Mar 23 – Mar 30: Analysis of Algorithms
• Apr 4 – Apr 11: Advanced topics
Textbooks


(recommended textbooks)
Assignments

• All include at least one programming question
• Programming Language: Java
• Read the formatting guidelines.
• Strictly follow the formatting guidelines!
• Each file must be submitted separately. Do not zip your files!
• Submit your answers electronically on MyCourse.
• Re-submission accepted before the deadline.
• Discuss the assignment, but do not share/copy solutions.
• Print the name of persons with whom you discussed/collaborated (including instructor and TA).
Formatting programming questions

- Submit the Java source file (i.e. not .class file)
- Ensure that your files compile on SOCS workstations
  (Note: Create an account if you do not already have one)
- Indent your code!
- Use the template provided.
- Do not use custom libraries (unless specified).
- Follow the syntax of the command line provided in the question.
- Use the test input & output (Note: It does not guarantee that your program is 100% correct).
Formatting text questions

• Write your answers in a PDF or text file (i.e. no word or image file)

• You can return (electronically) handwritten answers:
  o Scan your answers (e.g. you can use printers in Trottier)
  o Take a picture (Risky, check brightness & contrast)
  o Write clearly

• Organize your text.

• One single file for written answers.
Policy

• Material that does not follow the guidelines will be penalized as follows:
  o First time: The grader will email you. Answer within 24h and you will be graded with a penalty of 20%.
  o Other times: not graded.

• Late assignments will receive a 20% penalty if they are returned within less than 24h after the end of the deadline. **They will not be graded afterward.** (Advice: submit preliminary versions early)

• The only exceptions will be medical exceptions. You must provide a medical note (instructor & McGill).
Short Questions

• At the end of each class, we will post a link to a short anonymous questionnaire (3 short questions) on the previous lecture.

• Answers will be provided at the beginning of the next class.

• The midterm & final exams will include short questions!

• Review questionnaire for the next class: https://goo.gl/forms/Zg3E5W8FB6tQ1ktC2