

COMP 321: Programming Challenges
Winter 2019
School of Computer Science
McGill University

Instructor Coordinates

Diala Naboulsi - diala.naboulsi@mcgill.ca

Office: McConnel Engineering Building - Room 206N

Office hours: Thursday 5 PM – 5:45 PM

Appointments can be made for meetings at other times

Note: Include the course number in the subject field of emails that you send

Teaching Assistant Coordinates

Vincent Luczkow - vincent.luczkow@mail.mcgill.ca

TA office hours: TBA

Course Schedule

January 7, 2019 to April 12, 2019

Lectures: Monday 1:35 PM – 2:25 PM in SADB 1/12

Course Prerequisites

COMP 251, MATH 240 and MATH 223

Course Description

This course introduces students to programming challenges. The course allows students to improve and practice their algorithm design and programming skills. Students will be analyzing and solving a variety of problems, in preparation for programming competitions.

Course Content:

Topic	Description	Session
1	Introduction	Week 1
2	Data Structures	Week 2
3	Strings	Week 3
3	Problem solving paradigms	Week 4
		Week 5
4	Graph	Week 6 In class group contest
		Week 7
5	Combinatorics	Week 8
6	Number Theory	Week 9 In class group contest
7	Geometry	Week 10
		Week 11
	No lecture	Week 12 In class group contest

Assessment/Evaluation

- 5 Assignments 50%
- 2 highest contests grades 50%

Notes:

- It is not mandatory to attend the three contests. It is sufficient to attend two out of three for the evaluation.
- If you skip one contest out of 3, the remaining two will be considered for your grade.
- If you skip more than one contest (with valid proof, e.g. official conflicting exam schedule, medical note,...) an individual make-up exam can be scheduled.

Reference books

- Halim, Steven, and Felix Halim. *Competitive Programming 3*. Lulu Independent Publish, 2013
- Skienna, S; Revilla, M., *Programming Challenges*, Springer Verlag, 2003. ISBN: 0-387-00163-8.n
- T. H. Cormen, C. E. Leiserson, R. L. Rivest, and C. Stein, *Introduction to Algorithms* (Third Edition), MIT Press, Cambridge, MA, 2009

Assignment Submissions

All submissions must be in electronic form and uploaded to myCourses.

Late Assignment Policy

Late assignments will be accepted up to only 2 days late and will be penalized by 15% per day.

Plagiarism Policy

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 www.mcgill.ca/integrity/ for more information).