

COMP 321: Programming Challenges

Fall 2018

School of Computer Science

McGill University

Instructor Coordinates

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Teaching Assistant Coordinates

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Course Schedule

- **Sep 4, 2018 to Dec 3, 2018**
On Mondays 11:35 – 12:25 in ENGTR 1100
- **Dec 4, 2018**
Tuesday 11:35 – 12:25 in ENGTR 1100

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.

Communication outside course hours

- **Office hours**
- **By Email:** Include the course number in the subject field of emails that you send

Course Content:

Week	Topic	Date
1	Introduction	September 10, 2018
2	Data Structures	September 17, 2018
3	Problem solving paradigms	September 24, 2018
4	Problem solving paradigms	October 1, 2018
5	Problem solving paradigms	October 15, 2018
6	Graph	October 22, 2018
7	Graph	October 29, 2018
8	Mathematics In class group contest	November 5, 2018
9	Mathematics	November 12, 2018
10	Geometry In class group contest	November 19, 2018
11	Geometry	November 26, 2018
12	Strings	December 3, 2018
	Strings In class group contest	December 4, 2018

Assessment/Evaluation

- 8 Assignments 50%
- 2 Contests 50%

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