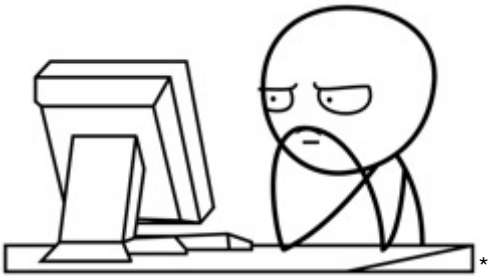
Programming - Course Outline



Introduction

This is course is an introduction to computer science. Our goal is simple:

> to be better problem solvers
> to be better solution designers

We will be looking at a project-based approach to all of this by learning Python 3. Depending on the rhythm that we take in our time together, we may look at other computer languages.

After this class, you should be able to take and pass the CMPT 120 placement exam from SFU's Computer Science program.

Big Ideas

Some threads that weave throughout all the things we'll be doing are the following.

- There is a rhythm for designing solutions
- Problem solving is a skill and it requires continuous improvement
- Problem solving requires a specific subset of skills

Elaborations

Elaborations can include concepts in the following list:
Parsing language, debugging, recommendation systems, interpreting data, computing history

Evaluation

Exercises and projects will be used to paint the picture for assessment.
Rubrics showing skill milestones will be given to you to help guide your own progress.

Course Materials

1. Headphones
2. Textbook - How to Think Like a Computer Scientist
http://interactivepython.org/runestone/static/thinkcspy/index.html

3. *** If you have your own device and you would like to use it, you are welcome to bring it to class. Please know that you bear all the risk surrounding taking your device to and from class. Please take care of it.

- Must be either a Windows or MacOS device with administrator access (read: Chromebooks, iOS devices like iPad Pro, and Android devices will not be sufficient to give the full experience).

Classroom Responsibilities

- Respect - all the other responsibilities stem from this one
- Come on time and prepared - respect my and your classmates' time
- Treat your learning environment well - respect the classroom space
- Attempt all the work - respect the process

Online Services

I will send home a consent form to use the services we use in the class. If your parents/guardians have any questions, you can ask them to reach out to me by email or by phone.

Communication and Operations

Slack is a space for students to share their questions, errors, and expertise with each other, online. Discussion and helping each other is encouraged!

Github

We'll put our work on Github in a public repository. This will help us with access as well as sharing our work.

Fine Print

If you continue taking this class, you agree to uphold the responsibilities to the best of your ability

You also agree to do the best that you can in this class

Finally, you agree that if you don't uphold these responsibilities, that you give permission to Mr. Ubial and your classmates to do what they can to help you uphold these responsibilities

Contact

Send me a message on Slack if you would like to get a hold of me. If you want to meet face-to-face, let me know and we can schedule something.