



Python 1: Programming Concepts

Spring 2024 Syllabus

5:45 – 8:45, Feb 12 – May 13, 2024

Virtually via Microsoft Teams, Please click [here](#)

Course Information

Instructor: Jean Juste

Office Hours: Friday 4:30 – 6:30

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Course description

In this course, students will learn programming fundamentals through the lens of Python. We will cover a variety of topics that will be helpful for someone trying to learn programming. The topics include loops, data structures, conditionals, file input and output, and Object-Oriented programming concepts. This course is intended for beginners with little to no experience with programming.

Software Requirements

[Visual Studio Code](#)

[Visual Studio Code Python Extension](#)

[Python 3.X](#)

We will cover the installation of this software during the class.

Course Structure

The structure of this course will be a mix of lecture and in-class examples and exercises. There will be regular hands-on code creation and breakdowns. We will have both in-class exercises as well as two small projects spaced out over the weeks. The class will end with a team-based Final Project. I strongly encourage interaction during class, as I believe some of the best learning comes from collaboration.

My main two sources of communication will be via email and Microsoft Teams. I will utilize the chat function during class and private messages outside of chat. The best way to reach me is by email (listed above) or sending a chat through Teams. My phone number is there as well if needed to reach me.



Course Goals and Objectives

Goals

- Students can write code for real-world use.
- Students can understand and implement programming concepts such as loops, conditionals, classes, and functions.

Objectives:

At the end of class students will:

- Create and import their own classes.
- Write code to be used to help with everyday tasks.
- Understand the basics of programming and be able to specialize in further learning.

Technologies

- Visual Studio Code
- Python 3
- PIP

Weekly Schedule

Week 1 - Introduction, Variables, Numerical Operators, and Printing

Week 2 - Boolean Expressions, Comments, Strings

Week 3 – Formatting Strings, Conditionals

Week 4 – For and While Loops

Week 5 - Lists and Ranges

Week 6 – Project 1 and Lists Continued

Week 7 – Tuples, Sets, and Dictionaries

Week 8 – Libraries and Functions

Week 9 - Lambdas, Errors, Exceptions, and Handling Exceptions

Week 10 - File Input and Output and Classes

Week 11 - Classes Continued

Week 12 - Project 2, Recursion

CanCode Communities Holiday Schedule - No class:

- Monday Feb 19, 2024
- Monday Apr 1, 2024
- Wednesday Apr 3, 2024

