



Course Syllabus

Python Programming | School Year 2020 - 2021

Objectives:

- Exposure to Computer Science through practical application and programming
- Introduce main concepts/ideas of Python
- Use Python to interact with applications
- And have fun!

Prerequisites: None required. Familiarity with the basics of programming logic recommended. No prior Python experience is required

Instructor Contact Information:

Primary Instructor: Adon Anglon

Email: adon.anglon@fremontstem.com

Website: All course materials (waiver, syllabi, etc.) will be posted on the course “Python Programming” of Google Classroom.

Class Times:

Lecture: Sunday, 6:00 PM - 7:30 PM

Required Materials:

- Students are required to bring laptops, notebooks and writing utensils to class every lecture.
- PyCharm is the IDE (integrated development environment) we will be using to write our code. I will go over this in the course so no stress.
- Links to PDFs and online resources will be provided in class. Note: Purchase of a computer science textbook is NOT required for participation in the course. All necessary materials will be provided throughout the course.

Reference Material:

<http://automatetheboringstuff.com/#toc>

Homework:

Homework that is assigned is strongly recommended. Answer keys will be available online the day the homework assignment is due. For help on practice problems, feel free to email the instructor.

Tentative Nature of the Syllabus:

The contents of this syllabus and attached schedule are tentative in nature and may be subject to change or revision. The

instructor holds the right to make changes to the schedule and/or organization of the class as necessary. Students and parents will be identified of any changes via email.

Special Accommodations:

If your student requires special accommodations, please notify the instructor as soon as possible.

Tentative Schedule

Fall 2020

| Date | Lesson | Topic |
|---------------------------|---------|---|
| 9/13 | 1 | Introduction & Python Basics |
| 9/20 | 2 | Python Basics Cont' |
| 9/27 | - | Lab |
| 10/4 | 3 | Flow Control |
| 10/11 | 4 | Flow Control Cont' |
| 10/18 | 5 | Functions |
| 10/25 | - | Lab |
| 11/1 | 6 | Functions Cont' |
| 11/8 | 7 | Lists |
| 11/15 | - | Reflection Lab |
| 11/22 | HOLIDAY | Thanksgiving Break |
| 11/29 | 8 | Dictionaries and Structuring Data |
| 12/6 | 9 | Manipulating Strings |
| 12/13 | - | Lab |
| 12/20 & 12/27 | HOLIDAY | Winter Break |
| 1/3 Happy New Year! | - | Review Lab |
| 1/10 | 10 | Pattern Matching with Regular Expressions |
| 1/17 | 11 | Pattern Matching with Regular Expressions Cont' |
| 1/24 | 12 | Exam |

**Note: Schedule is tentative in nature and subject to change at the instructor's discretion.*

Spring 2021

| Date | Lesson | Topic |
|------|---------|--|
| 1/31 | 13 | Debugging |
| 2/7 | 14 | Reading & Writing Files |
| 2/14 | 15 | Reading & Writing Files Cont' |
| 2/21 | 16 | Organizing Files |
| 2/28 | - | Lab |
| 3/7 | 17 | Working With Excel Spreadsheets |
| 3/14 | 18 | Working With Excel Spreadsheets Cont' |
| 3/21 | 19 | Working With PDF and Word Docs |
| 3/28 | 20 | Working With PDF and Words Docs Cont' |
| 4/4 | HOLIDAY | Spring Break |
| 4/11 | - | Reflection Lab |
| 4/18 | 21 | Working With CSV Files and JSON Data |
| 4/25 | 22 | Keeping Time, Scheduling Tasks, and Launching Programs |
| 5/2 | 23 | KT, ST, and LP Cont' |
| 5/9 | - | Lab |
| 5/16 | 24 | Manipulating Images |
| 5/23 | 25 | Manipulating Images Cont' |
| 5/30 | - | Reflection Lab |
| 6/6 | - | Final Exam |

**Note: Schedule is tentative in nature and subject to change at the instructor's discretion.*