Introduction to Python

ILS-Z 603 (Graduate workshop)
May 12 - May 28, Tuesdays & Thursdays, 4-7PM, LI 002
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Apollo Slays Python, Eugène Delacroix (1798-1863)
Musée du Louvre, Paris
Welcome to the Python workshop!

In these six sessions, you will learn some basic programming concepts, as well as how to develop Python programs. After this workshop, you should be ready not only to learn more advanced concepts in Python, but also to start exploring other programming languages on your own.

Perquisites & Intended Audience

The workshop has been designed for absolute beginners. No prior knowledge of Python or computer programming concepts is assumed (Although it won’t hurt if you already know a few things).

Taking this class is a good idea if:

- You have never programmed before, but would like to get started with this whole programming business with an easy-to-learn language.
- You have limited exposure to programming, but not to Python.

And it may not be such a good idea if:

- You have taught programming before, or have worked as a programmer (Rule of thumb: If you have written a program with over 399 lines of code).
- You already know “some” Python. (Look at the syllabus to see what we will be covering; If you already know most of it, or enough to make you feel you don’t need a workshop to figure the rest out, well, then you can figure it out on your own!)

Class Format

Each class is (unequally) divided between a ‘lecture’ session and a ‘lab’ session. The lecture session is where I talk about the topic of the day and use a combination of slides and/or computer code to teach what we need to learn for the day. The lab session is where you really learn Python! Here, you will work on coding problems. Feel free to ask questions during both the lecture and the lab sessions.

Lab Tasks

During the lab session, you work on the day’s lab task. Lab tasks are due at the end of the lab session. Make sure that you have submitted them before leaving. Please feel free to ask questions if you need help in doing the tasks. Delayed submissions are not allowed for lab tasks. This also means that if you’re absent, you will lose the points for that day’s lab task.

Homework Assignments

There is a homework assignment after each class. These assignments are due at the beginning of the next class. In doing the homework, you can consult your friends, books,
and so forth, but you are expected to eventually come up with solutions on your own. **Delayed submissions** of up to 12 hours automatically get a 50% penalty. After that, the submission will not be graded.

**Submitting Your Work**

Starting this semester, we will be working with IU’s *Canvas* system ([http://canvas.iu.edu](http://canvas.iu.edu)).

**Attendance**

Showing up to classes generally has a positive effect on learning. So to help you learn the material more effectively, you will be expected to be present in **at least 5 sessions** (out of 6) to receive the attendance points (No reason to want to skip a class, but you have that option anyway). If you need to miss more than 1 class due to an unexpected situation, please email me and discuss the matter.

**Grading**

This is the breakdown of your final grade (subject to minor changes):

- Lab Assignments (40%)
- Homework Assignments (50%)
- Attendance (10%)

**Required Textbooks**


Go to the below address and search for the book title. You’ll find it: [http://libraries.iub.edu/resources/books247](http://libraries.iub.edu/resources/books247)


Available at: [http://www.greenteapress.com/thinkpython/thinkCSpy/html/](http://www.greenteapress.com/thinkpython/thinkCSpy/html/)

**The “Sessions”**

The sessions are where everything will go down. Consider this as a dynamic schedule, possibly subject to minor changes. If I change anything, I’ll send out a note to your emails. Here are the details:

(R = Required Reading, O = Optional Reading, D = Due)

**Session 1 (May 12):** Workshop Overview, Some Unix and Programming
Session 2 (May 14): Lists & Tuples

- Reading: Hetland, Chapter 2
- Discussion: Lab Task 1, Homework 1

Session 3 (May 19): Dictionaries, Strings

- Reading: Hetland, Chapters 3 and 4
- Discussion: Lab Task 2, Homework 2

Session 4 (May 21): Conditionals and Loops

- Reading: Hetland, Chapter 5
- Discussion: Lab Task 3, Homework 3

Session 5 (May 26): Functions

- Reading: Hetland, Chapter 6
- Discussion: Lab Task 4, Homework 4

Session 6 (May 28): Files

- Reading: Hetland, Chapter 11
- Discussion: Lab Task 5, Homework 5

Other Resources

A useful reference for Unix commands: http://www.ee.surrey.ac.uk/Teaching/Unix/