Course Syllabus

Introduction to Python

Instructor Name: Joseph Perry
Instructor Contact: LinkedIn

Course Creation Date: [04/2019]

Course Description and Goals

Course Description: This is an introductory course on Python, giving students the ability to understand the language, solve problems with scripts and identify useful Python modules. Anyone interested in learning Python can pick up this course and follow the processes demonstrated. Lab time is highly encouraged, however, the Challenges and Solutions have been made available to go through.

Prerequisites:

1. Computers
2. Familiarity with Linux Command Line (optional, but highly encouraged)
3. Familiarity with VMs (Optional, but helpful)

Supplementary Materials:
1. Cheat Sheet- Dictionaries
2. Cheat Sheet- Lists
3. Cheat Sheet- If/While
4. Cheat Sheet- Functions
5. Cheat Sheet- Files and Exceptions
6. Challenges
7. Solutions

Brought to you by:
CYBRARY | FOR BUSINESS

*Develop your team with the **fastest growing catalog** in the cybersecurity industry. Enterprise-grade workforce development management, advanced training features and detailed skill gap and competency analytics.*

Course Goals: By the end of this course, learners should be able to:

- ❏ Understand Boolean logic and apply it
- ❏ Understand the design of Python programming language
- ❏ Understand Python statements
- ❏ Describe the different Python data-types
- ❏ Use Python script in solving problems
- ❏ Identify useful Python modules

Related Labs:

1. Getting Started with Python on Ubuntu - Writing Your First Program Lab
2. Getting Started with Python on Ubuntu - Running from the Command Line Lab
3. Other lab resources

Course Outline

Module 1 | Just the Basics

Lesson 1.0: Introduction
Lesson 1.1: Background Information (8:29)
Lesson 1.2.1: Programming Basics (Logic) Part 1 (9:45)
Lesson 1.2.2: Programming Basics (Logic) Part 2 (8:12)
Lesson 1.3: Programming Basics (Variables) (6:38)
Lesson 1.4: Programming Basics (If/Else) (7:31)
Lesson 1.5: Programming Basics (For) (8:23)
Lesson 1.6: Programming Basics (while) (6:05)
Lesson 1.7.1: Turning Logic into Pseudo-code Part 1 (7:37)

Lesson 1.7.2: Turning Logic into Pseudo-code Part 2 (6:15)
Lesson 1.7.3: Turning Logic into Pseudo-code Part 3 (6:35)
Lesson 1.8.1: Python Basics Part 1 (4:41)
Lesson 1.8.2: Python Basics Part 2 (7:25)
Lesson 1.9: Summary and Review (1:44)

Module 2 | Data Types and Logics

Lesson 2.0: Data types and Logic Introduction (2:30)
Lesson 2.1: If/Elif/Else in Python (8:36)
Lesson 2.2: For/Else in Python (8:42)
Lesson 2.3: While in Python (5:54)
Lesson 2.4: Logical Escapes in Python (6:34)
Lesson 2.5: Python Functions (9:55)
Lesson 2.6.1: Strings Deep-dive Part 1 (9:23)
Lesson 2.6.2: Strings Deep-dive Part 2 (7:26)
Lesson 2.7: Numbers Deep-dive (5:16)
Lesson 2.8: Lists Deep-dive (7:42)
Lesson 2.9: Dictionaries Deep-dive (5:49)
Lesson 2.10: Summary and Review (3:32)