

Introduction to Python

GoSkills online course syllabus

Thursday, November 21, 2024

Skill level

Beginner

Lessons

41

Accredited by

CPD

Pre-requisites

None

Video duration

3h 01m

Estimated study time

20h 30m for all materials

Instructor

John Elder

Intro and Setup

- 1** **Install Sublime and Git Bash Terminal**
We'll start off by installing the Sublime Text editor and the Git Bash Terminal.
- 2** **Installing Python**
We'll download and install Python.
- 3** **First Program**
Let's create our first program.
- 4** **Comments and C9 Transition**
Learn when and how to use comments in your code.

Python Basics

- 5** **Variables**
What is a variable and how can you name them?
- 6** **Data Types**
We'll look at data types including numbers, strings, lists, tuples, and dictionaries.
- 7** **Strings**
What is a string?

8 String Manipulation

How to manipulate strings.

9 Math Operators

How to do basic math in Python.

10 Numbers

What's the difference between a floating point number and an integer?

11 Assignment Operators

What are the different assignment operators and how are they used.

12 Lists

What are lists and how do we use them?

13 Lists of Lists

We'll look at multidimensional lists, or - lists of lists.

14 Tuples

What is a tuple and how is it different from a list?

15 Dictionaries

What is a dictionary and how do we use them?

Intermediate Python

16 Data Type Conversion

How to convert one data type into another data type.

17 Comparison Operators

How to compare two things.

18 Conditionals If/Else/Elif

Using comparison operators to make decisions.

19 Multiple Conditionals

What are the logical operators AND/OR/NOT and how do we use them?

20 Python Formatting
Formatting in Python is important! Let's look at lines and indentation, and single line If statements.

21 Membership Operators
We'll look at the membership operators "In", and "Not In".

22 Identity Operators
We'll look at the identity operators "Is", and "Is Not".

23 While Loops
Learn to loop using a While loop.

24 For Loops
Learn to loop using a For loop.

25 Loop Control Statements
Take control of your loops using "break", "continue", and "pass".

26 FizzBuzz!
Let's build a FizzBuzz app!

27 Functions Part 1
What are functions and how to use them.

28 Functions Part 2
More about functions and how to use them.

29 Program Flow
Understanding Program Flow in Python, and how functions can change that flow.

30 Random Numbers
How to create and use random numbers.

31 Modules
Using third party modules in your code, and creating your own.

32 Getting User Input
Allow the user to interact with your program with `raw_input` and `input`.

33 Opening and Closing Files
How to open and close a file with Python.

34 Reading and Writing Files
How to read and write to a file with Python.

35 Renaming and Deleting Files
How to rename and delete a file with Python.

Advanced Python

36 Overview of Classes and Object Oriented Programming
What are classes and what are they used for.

37 Creating a Class Part 1
How to create a simple class.

38 Creating a Class Part 2
More about creating simple classes.

39 Creating A Class Part 3
Finishing up our tutorial on classes.

40 Built-In Class Attributes
What are the built-in Python class attributes?

41 Class Inheritance
Using other classes inside of your class.

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