

# Introduction to Python

GoSkills online course syllabus

Friday, May 17, 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

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- 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

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- 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

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- 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

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- 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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